Thr Ala Arg Asn Ala Leu Glu Glu Asn Val Phe Met Glu Asn Thr Asn 355 360 365

Met Pro Glu Val Thr Ile Ser Glu Asn Thr Asn Tyr Asn His Pro Pro 370 380

Glu Ala Asp Ser Xaa Gly Thr Ala Phe Asn Leu Gly Pro Thr Val Lys 385 390 395 400

Gln Thr Glu Thr

<210> 2109

<211> 45

<212> PRT

<213> Homo sapiens

<400> 2109

Met Val Thr Ser Gly Met Leu Val Phe Ser Ile Lys Thr Phe Ser Ser 1 10 15

Lys Ala Phe Leu Ala Val Val Ser Phe Ile Leu Val Val Ser Ile Lys
20 25 30

Cys Ser Glu Gly Ala Asp Thr Ser Arg Lys Gly Phe Ser 35 40 45

<210> 2110

<211> 45

<212> PRT

<213> Homo sapiens

<400> 2110

Met Val Thr Ser Gly Met Leu Val Phe Ser Ile Lys Thr Phe Ser Ser 1 5 10 15

Lys Ala Phe Leu Ala Val Val Ser Phe Ile Leu Val Val Ser Ile Lys 20 25 30

Cys Ser Glu Gly Ala Asp Thr Ser Arg Lys Gly Phe Ser 35 40 45

<210> 2111

<211> 257

<212> PRT

<213> Homo sapiens

<460> 2111

Met Glu Met Ile Ile Gln Phe Gly Phe Val Thr Leu Phe Val Ala Ser 1 5 19

Phe Pro Leu Ala Pro Leu Phe Ala Leu Leu Asn Asn Ile Ile Glu Ile 20 25 30

Arg Leu Asp Ala Lys Lys Phe Val Thr Glu Leu Arg Arg Pro Val Ala 35 40 45

Val Arg Ala Lys Asp Ile Gly Ile Trp Tyr Asn Ile Leu Arg Gly Ile 50 60

Gly Lys Leu Ala Val Ile Ile Asn Ala Phe Val Ile Ser Phe Thr Ser 65 70 75 80

Asp Phe Ile Pro Arg Leu Val Tyr Leu Tyr Met Tyr Ser Lys Asn Gly 85 90 95

Thr Met His Gly Phe Val Asn His Thr Leu Ser Ser Phe Asn Val Ser
100 105 110

Asp Phe Gln Asn Gly Thr Ala Pro Asn Asp Pro Leu Asp Leu Gly Tyr 115 120 125

Glu Val Gln Ile Cys Arg. Tyr Lys Asp Tyr Arg Glu Pro Pro Trp Ser 130 135 140

Glu Asn Lys Tyr Asp Ile Ser Lys Asp Phe Trp Ala Val Leu Ala Ala 145 150 155 160

Arg Leu Ala Phe Val Ile Val Phe Gln Asn Leu Val Met Phe Met Ser 165 170 175

Asp Phe Val Asp Trp Val Ile Pro Asp Ile Pro Lys Asp Ile Ser Gln 180 185 190

Gln Ile His Lys Glu Lys Val Leu Met Val Glu Leu Phe Met Arg Glu 195 200 205

Glu Gln Asp Lys Gln Gln Leu Leu Glu Thr Trp Met Glu Lys Glu Arg 210 215 220

Gln Lys Asp Glu Pro Pro Cys Asn His His Asn Thr Lys Ala Cys Pro 225 230 235 240

Asp Ser Leu Gly Ser Pro Ala Pro Ser His Ala Tyr His Gly Gly Val 245 250 255

Leu

<210> 2112

<211> 50

<212> PRT

<213> Homo sapiens

<400> 2112

Met Thr His Gly Cys Leu Ser Leu Ala Ser Met Ala Ala Gly Leu Gly
1 5 10 15

Ser Val Ser Leu Phe Leu Phe Val Gln Gln Trp Thr Pro Thr Thr Ala 20 25 30

Ser Thr Gly Slu Thr Pro Ser Ser Trp Gln Lys Thr Thr Ser Cys Val 40 45

Arg Arg 50

<210> 2113

<211> 50

<212> PRT

<213> Homo sapiens

<400> 2113

Met Thr His Gly Cys Leu Ser Leu Ala Ser Met Ala Ala Gly Leu Gly $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ser Val Ser Leu Phe Leu Phe Val Gln Gln Trp Thr Pro Thr Thr Ala 20 25 30

Ser Thr Gly Glu Thr Pro Ser Ser Trp Gln Lys Thr Thr Ser Cys Val
35 40 45

Arg Arg 50

<210> 2114

<211> 74

<212> PRT

<213> Homo sapiens

<400> 2114

Met Val Leu Leu Leu Leu Leu Leu Gln Lys Ile Pro Gly Thr Pro 1 5 10 15

Leu Phe Gln Pro Gly Phe Leu Gly Trp Ala Gln Glu Ser Cys Gln Ile 20 25 30

Gin Ser Tyr Val Gly Ser Lys Leu Pro Leu Cys Cys Phe Cys Gln Ala 40 45

Arg Cys Gly His Ser Lys Phe Ile Cys Val Asn Lys Arg Lys Glu Glu 50 55 60

Pro Ser Gly Cys Asn Arg Thr Asp Ser Ser 65

<210> 2115

<211> 94

<212> PRT

<213> Homo sapiens

<400> 2115

Met Trp Pro Trp Trp Leu Met Val Glu Arg Thr Val Val Leu Leu 1 5 10 15

Ile Thr Tyr Leu Val Pro Val Gly Gly Ser Ala Val Gly Pro Pro Gly 20 25 30

Pro Gly Cys Asn Val Ser Thr Ser Pro Pro Pro Pro Ala Thr Arg Cys 35 40 45

Pro Asp Glu Ser Glu Leu Tyr Arg Asp Pro Gly Glu Ala Pro Leu Glu 50 60 ·

Ala Asp Gln Ala Glu Arg Gly Ala Ala His Glu Gly Gly His Pro Gly 65 70 75 80

Arg Asp Pro Trp Gly Ala Arg Arg Gly Pro Pro Arg Cys Gly 85 90

<210> 2116

<211> 180

<212> PRT

<213> Homo sapiens

<400> 2116

Met Ala Ile Cys Ser.Cys Gln Cys Pro Ala Ala Met Ala Phe Cys Phe 1 5 10 15

Leu Glu Thr Leu Trp Trp Glu Phe Thr Ala Ser Tyr Asp Thr Thr Cys 20 25 30

Ile Gly Leu Ala Ser Arg Pro Tyr Ala Phe Leu Glu Phe Asp Ser Ile 35 40 45

Ile Gln Lys Val Lys Trp His Phe Asn Tyr Val Ser Ser Ser Gln Met 50 55 60

Glu Cys Ser Leu Glu Lys Ile Gln Glu Glu Leu Lys Leu Gln Pro Pro 65 70 75 80

Ala Val Leu Thr Leu Glu Asp Thr Asp Val Ala Asn Gly Val Met Asn 85 90 95

Gly His Thr Pro Met His Leu Glu Pro Ala Pro Asn Phe Arg Met Glu
100 105 110

Pro Val Thr Ala Leu Gly Ile Leu Ser Leu Ile Leu Asn Ile Met Cys 115 120 125

Ala Ala Leu Asn Leu Ile Arg Gly Val His Leu Ala Glu His Ser Leu 130 135 140

Gln Val Ala His Glu Glu Ile Gly Asn Ile Leu Ala Phe Leu Val Pro 145 150 155 160

Phe Val Ala Cys Ile Phe Gln Asp Pro Arg Ser Trp Phe Cys Trp Leu 165 170 175

Asp Gln Thr Ser 180

<210> 2117

<211> 80

<212> PRT

<213> Homo sapiens

<400> 2117

Met Trp Pro Arg Met Leu Ala Phe Ser Thr Trp Leu Glu Trp Leu Leu 1 5 10 15

Phe Ser Pro Leu Pro Gln Ser Val Gly Cys Pro Gly Pro Leu Glu Phe 20 25 30

Tyr Cys Val Gln Asp Arg Arg Pro Pro Ser Leu Pro Asp Gly Ala Asp 35 40 45

His Phe Ser Ser Pro Thr Arg Ile Thr Ser Ser Ser Ile Ser Pro Ala 50 55 60

Leu Ser Leu Gln Ala Pro Glu Ala Gly Gly Phe Leu Ser Ile Pro Gly 65 70 75 80

<210> 2118

<211> 21

<212> PRT

<213> Homo sapiens

<400> 2118

Met His Asp Val Leu Phe Phe Leu Ser Phe Ser Leu Val Ala Cys Val $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Lys Ala Gly Met Leu 20

<210> 2119

<211> 291

<212> PRT

<213> Homo sapiens

<400> 2119

Met Asp Phe Ile Gln His Leu Gly Val Cys Cys Leu Val Ala Leu Ile 1 15

Ser Val Gly Leu Leu Ser Val Ala Ala Cys Trp Phe Leu Pro Ser Ile 20 25 30

Ile Ala Ala Ala Ser Trp Ile Ile Thr Cys Val Leu Leu Cys Cys 35 40 45

Ser Lys His Ala Arg Cys Phe Ile Leu Leu Val Phe Leu Ser Cys Gly
50 55 60

Leu Arg Gla Gly Arg Asn Ala Leu Ile Ala Ala Gly Thr Gly Ile Val

65 70 75 80

Ile Leu Gly His Val Glu Asn Ile Phe His Asn Phe Lys Gly Leu Leu 85 90 95

Asp Gly Met Thr Cys Asn Leu Arg Ala Lys Ser Phe Ser Ile His Phe 100 105 110

Pro Leu Leu Lys Lys Tyr Ile Glu Ala Ile Gln Trp Ile Tyr Gly Leu 115 120 125

Ala Thr Pro Leu Ser Val Phe Asp Asp Leu Val Ser Trp Asn Gln Thr 130 135 140

Leu Ala Val Ser Leu Phe Ser Pro Ser His Val Leu Glu Ala Gln Leu 145 150 155 160

Asn Asp Ser Lys Gly Glu Val Leu Ser Val Leu Tyr Gln Met Ala Thr 165 170 175

Thr Thr Glu Val Leu Ser Ser Leu Gly Gln Lys Leu Leu Ala Phe Ala 180 185 190

Gly Leu Ser Leu Val Leu Leu Gly Thr Gly Leu Phe Met Lys Arg Phe 195 200 205

Leu Gly Pro Cys Gly Trp Lys Tyr Glu Asn Ile Tyr Ile Thr Arg Gln 210 215 220

Phe Val Gln Phe Asp Glu Arg Glu Arg His Gln Gln Arg Pro Cys Met 225 230 235 240

Leu Pro Leu Asn Lys Glu Glu Arg Arg Lys Asn Lys Glu Leu Lys Ile 245 250 255

Leu Ser Met Ile Leu Pro Leu Ile Tyr Leu Cys Leu Asn Pro Thr Val 260 265 270

Ser Gln Asn Gln Asn Ser Phe Tyr Leu Arg Pro Gly Phe Leu Ser Val 275 280 285

Leu Phe Phe 290

<210> 2120

<211> 257

<212> PRT

<213> Homo sapiens

<400> 2120

Met Asp Phe Ile Gln His Leu Gly Val Cys Cys Leu Val Ala Leu Ile 1 5 10 15

Ser Val Gly Leu Leu Ser Val Ala Ala Cys Trp Phe Leu Pro Ser Ile 20 25 30

Ile Ala Ala Ala Ser Trp Ile Ile Thr Cys Val Leu Leu Cys Cys 35 40 45

Ser Lys His Ala Arg Cys Phe Ile Leu Leu Val Phe Leu Ser Cys Gly 55 Leu Arg Glu Gly Arg Asn Ala Leu Ile Ala Ala Gly Thr Gly Ile Val 70 Ile Leu Gly His Val Glu Asn Ile Phe His Asn Phe Lys Gly Leu Leu Asp Gly Met Thr Cys Asn Leu Arg Ala Lys Ser Phe Ser Ile His Phe 105 Pro Leu Lys Lys Tyr Ile Glu Ala Ile Gln Trp Ile Tyr Gly Leu Ala Thr Pro Leu Ser Val Phe Asp Asp Leu Val Ser Trp Asn Gln Thr 135 Leu Ala Val Ser Leu Phe Ser Pro Ser His Val Leu Glu Ala Gln Leu 155 145 150 Asn Asp Ser Lys Gly Glu Val Leu Ser Val Leu Tyr Gln Met Ala Thr 170 Thr Thr Glu Val Leu Ser Ser Leu Gly Gln Lys Leu Leu Ala Phe Ala 185 Gly Leu Ser Leu Val Leu Leu Gly Thr Gly Leu Phe Met Lys Arg Phe Leu Gly Pro Cys Gly Trp Lys Tyr Glu Asn Ile Tyr Ile Thr Arg Gln 215 Phe Val Gln Phe Asp Glu Arg Glu Arg His Gln Gln Arg Pro Cys Val

Ser

<210> 2121 <211> 257

<212> PRT

<213> Homo sapiens

<400> 2121

Met Asp Phe Ile Gln His Leu Gly Val Cys Cys Leu Val Ala Leu Ile 1 5 10

Leu Pro Leu Asn Lys Glu Glu Arg Arg Lys Phe Ile Ser Gly Phe Gln

250

Ser Val Gly Leu Leu Ser Val Ala Ala Cys Trp Phe Leu Pro Ser Ile 20 25 30

Ile Ala Ala Ala Ser Trp Ile Ile Thr Cys Val Leu Cys Cys 35 40 45

Ser Lys His Ala Arg Cys Phe Ile Leu Leu Val Phe Leu Ser Cys Gly 50 55 60

Leu Arg Glu Gly Arg Asn Ala Leu Ile Ala Ala Gly Thr Gly Ile Val 65 70 75 80

Ile Leu Gly His Val Glu Asn Ile Phe His Asn Phe Lys Gly Leu Leu 85 90 95

Asp Gly Met Thr Cys Asn Leu Arg Ala Lys Ser Phe Ser Ile His Phe 100 105 110

Pro Leu Leu Lys Lys Tyr Ile Glu Ala Ile Gln Trp Ile Tyr Gly Leu 115 120 125

Ala Thr Pro Leu Ser Val Phe Asp Asp Leu Val Ser Trp Asn Gln Thr 130 135 140

Asn Asp Ser Lys Gly Glu Val Leu Ser Val Leu Tyr Gln Met Ala Thr 165 170 175

Thr Thr Glu Val Leu Ser Ser Leu Gly Gln Lys Leu Leu Ala Phe Ala 180 185 190

Gly Leu Ser Leu Val Leu Leu Gly Thr Gly Leu Phe Met Lys Arg Phe
195 200 205

Leu Gly Pro Cys Gly Trp Lys Tyr Glu Asn Ile Tyr Ile Thr Arg Gln 210 215 220

Phe Val Gln Phe Asp Glu Arg Glu Arg His Gln Gln Arg Pro Cys Val 225 230 235 240

Leu Pro Leu Asn Lys Glu Glu Arg Arg Lys Phe Ile Ser Gly Phe Gln 245 250 255

Ser

<210> 2122

<211> 352

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (284)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2122

Met Asp Phe Ile Gln His Leu Gly Val Cys Cys Leu Val Ala Leu Ile 1 5 10 15

Ser Val Gly Leu Leu Ser Val Ala Ala Cys Trp Phe Leu Pro Ser Ile 20 25 30

Ile	Ala	Ala 35	Ala	Ala	Ser	Trp	Ile 40	Ile	Thr	Cys	Val	Leu 45	Leu	Càa	Cys
Ser	Lys 50	His	Ala	Arg	Cys	Phe 55	Ile	Leu	Leu	Val	Phe 60	Leu	Ser	Cys	Gly
Leu 65	Arg	Glu	Gly	Arg	Asn 70	Ala	Leu	Ile	Ala	Ala 75	Gly	Thr	Gly	Ile	Val 80
Ile	Leu	Gly	His	Val 85	Glu	Asn	Ile	Phe	His 90	Asn	Phe	Lys	Gly	Leu 95	Leu
Asp	Gly	Met	Thr 100	Cys	Asn	Leu	Arg	Ala 105	Lys	Ser	Phe	Ser	Ile 110	His	Phe
Pro	Leu	Leu 115	Lys	Lys	Tyr	Ile	Glu 120	Ala	Ile	Gln	Trp	Ile 125	Tyr	Gly	Leu
Ala	Thr 130	Pro	Leu	Ser	Val	Phe 135	Asp	Asp	Leu	Val	Ser 140	Trp	Asn	Gln	Thr
Leu 145	Ala	Val	Ser	Leu	Phe 150	Ser	Pro	Ser	His	Val 155	Leu	Glu	Ala	Gln	Leu 160
Asn	Asp	Ser	Lys	Gly 165	Glu	Val	Leu	Ser	Val 170	Leu	Tyr	Gln	Met	Ala 175	Thr
Thr	Thr	Glu	Val 180	Leu	Ser	Ser	Leu	Gly 185	Gln	Lys	Leu	Leu	Ala 190	Phe	Ala
Gly	Leu	Ser 195	Leu	Val	Leu	Leu	Gly 200	Thr	Gly	Leu	Phe	Met 205	Lys	Arg	Phe
Leu	Gly 210	Pro	Cys	Gly	Trp	Lys 215	Tyr	Glu	Asn	Ile	Tyr 220	Ile	Thr	Arg	Gln
Phe 225	Val	Gln	Phe	Asp	Glu 230	Arg	Glu	Arg	His	Gln 235	Gln	Arg	Pro	Cys	Val 240
Leu	Pro	Leu	Asn	Lys 245	Glu	Glu	Arg	Arg	Lys 250	Tyr	Val	Ile	Ile	Pro 255	Thr
Phe	Trp	Pro	Thr 260	Pro	Lys	Glu	Arg	Lys 265	Asn	Leu	Gly	Leu	Phe 270	Phe	Leu
Pro	Ile	Leu 275	Ile	His	Leu	Cys	Ile 280	Trp	Val	Leu	Хаа	Ala 285	Ala	Val	Asp
Tyr	Leu 290	Leu	Туг	Arg	Leu	Ile 295	Phe	Ser	Val	Ser	Lys 300	Gln	Phe	Gln	Ser
Leu 395	Pro	Gly	Phe	Glu	Val 310	His	Leu	Lys	Leu	His 315	Gly	Glu	Lys	Gln	Gly 320
Thr	Gln	Asp	Ile	Ile 325	His	Asp	Ser	Ser	Phe 330		Ile	Ser	Val	Phe 335	Glu
Pro	Asn	Cys	Ile 340	Pro	Lys	Pro	Trp	Gln 345		Leu	Lys	Leu	Leu 350		His

<210> 2123

<211> 259

<212> PRT

<213> Homo sapiens

<400> 2123

Met Val Ser Cys Ser Ile Leu Ala Leu Thr His Leu Leu Phe Glu Phe 1 5 10 15

Lys Gly Leu Met Gly Thr Ser Thr Val Glu Gln Leu Leu Glu Asn Val
20 25 30

Cys Leu Leu Ala Ser Arg Thr Arg Asp Val Val Lys Ser Ala Leu 35 40 45

Gly Phe Ile Lys Val Ala Val Thr Val Met Asp Val Ala His Leu Ala 50 55 60

Lys His Val Gln Leu Val Met Glu Ala Ile Gly Lys Leu Ser Asp Asp 65 70 75 80

Met Arg Arg His Phe Arg Met Lys Leu Arg Asn Leu Phe Thr Lys Phe $85\,$ 90 $\,$ 95

Ile Arg Lys Phe Gly Phe Glu Leu Val Lys Arg Leu Leu Pro Glu Glu
100 105 110

Tyr His Arg Val Leu Val Asn Ile Arg Lys Ala Glu Ala Arg Ala Lys 115 120 125

Arg His Arg Ala Leu Ser Gln Ala Ala Val Glu Glu Glu Glu Glu Glu 130 135 140

Ile Leu Ala Asp Ser Glu Asp Glu Glu Asp Asn Glu Glu Glu Glu Arg 165 170 , 175

Ser Arg Gly Lys Glu Gln Arg Lys Leu Ala Arg Gln Arg Ser Arg Ala 180 185 190

Trp Leu Lys Glu Gly Gly Gly Asp Glu Pro Leu Asn Phe Leu Asp Pro 195 200 205

Lys Val Ala Gln Arg Val Leu Ala Thr Gln Pro Gly Pro Ala Gly Gln 210 215 . 220

Glu Glu Gly Pro Gln Leu Gln Gly Glu Arg Arg Trp Pro Ala Asp His 225 230 235 240

Lys Gly Gly Gly Arg Arg Gln Gln Asp Gly Gly Arg Gly Arg Cys Gln 245 250 255

Arg Arg Arg

<210> 2124

<211> 42

<212> PRT

<213> Homo sapiens

<400> 2124

Met Leu Trp Leu Gly Thr Ser Leu Ile Phe Ser Ser Phe Ser Ala Ser 1 $$ 5 $$ 10 $$ 15

Phe Asp Gly Val Pro Phe Leu Ser Ser Trp Leu Phe Trp Ser Ser Gly 20 25 30

Ser Ser Pro Asn Ser Leu Ile Pro Pro Phe 35 40

<210> 2125

<211> 45

<212> PRT

<213> Homo sapiens

<400> 2125

Met Tyr Pro Pro Val Ala Pro Ser Phe Trp Gly Cys Val Cys Phe Phe $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Trp Ala Val Pro Leu Val Cys Cys Arg Asp Ser Trp Lys Gly Leu Ser 20 25 30

Leu Phe Val Gly Ser Gly Gly Leu Gly Leu Val Glu His

<210> 2126

<211> 54

<212> PRT

<213> Homo sapiens

<400> 2126

Met Trp Pro Phe Leu His Leu Leu Asn Met Pro Phe Thr Leu Thr Gln $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Val Val Ala Ser Pro Ser Ser Cys Ser Asn Trp Lys Pro Gln His Pro 20 25 30

Glu Met Pro Pro Gln Ile His Cys Thr His Val Cys Leu Cys Met 35 40 45

Arg Val Cys Ala Arg Val

<210> 2127

<211> 136

<212> PRT

<213> Homo sapiens

<400> 2127

Met Leu Met Leu Leu Thr Leu Leu Val Leu Gly Met Val Trp Val Ala 1 5 10 15

Ser Ala Ile Val Asp Lys Asn Lys Ala Asn Arg Glu Ser Leu Tyr Asp 20 25. 30

Phe Trp Glu Tyr Tyr Leu Pro Tyr Leu Tyr Ser Cys Ile Ser Phe Leu 35 40 45

Gly Val Leu Leu Leu Gly Glu Cys Thr Gly Ser Gly Arg Glu Trp
50 55 60

Ala Gly Ser Leu Asp Gln Ser Asn Gln Ala Arg Arg Lys Gly Asn Gly 65 70 75 80

Gly His Val Arg Glu Gly Val Glu Ser Arg Val Trp Gln Val Thr Gly 85 90 95

Ser Cys Pro Tyr Ser Val Tyr Ser Thr Gly Ser Arg Pro His Val Leu 100 105 110

Arg His Trp Glu Ala Ala Ser Gln Ala Pro Ala Ala Gly Arg Pro Gly 115 120 125

Gly Ala Ala Val Leu Leu Ser Leu 130 135

<210> 2128

<211> 74

<212> PRT

<213> Homo sapiens

<400> 2128

Met His Trp Thr Phe Ser Ser Ser Leu Gly Cys Leu Tyr His Phe Ser 1 5 10 15

Leu Ser Phe Ser Gly Leu His Thr Val Leu Lys Ser Ser Pro Ser Ser 20 25 30

Arg Phe Leu Leu Pro Cys Ser Ser Gln Val Thr Gln Pro Ser Pro Val 35 40 45

Gly Gln Pro Arg Leu Val Val Gln Leu Pro Pro Val Lys Val Ile Gly 50 55 60

His Arg Thr Gly Gln Cys Arg Gly Pro Gly 65 70

<210> 2129

<211> 253

<212> PRT

<213> Homo sapiens

<400> 2129

Met Asp Asn Arg Phe Ala Thr Ala Phe Val Ile Ala Cys Val Leu Ser 1 5 10 15

Leu Ile Ser Thr Ile Tyr Met Ala Ala Ser Ile Gly Thr Asp Phe Trp 20 25 30

Tyr Glu Tyr Arg Ser Pro Val Gln Glu Asn Ser Ser Asp Leu Asn Lys 35 40 45

Ser Ile Trp Asp Glu Phe Ile Ser Asp Glu Ala Asp Glu Lys Thr Tyr 50 60

Asn Asp Ala Leu Phe Arg Tyr Asn Gly Thr Val Gly Leu Trp Arg Arg 65 70 75 80

Cys Ile Thr Ile Pro Lys Asn Met His Trp Tyr Ser Pro Pro Glu Arg 85 90 95

Thr Glu Ser Phe Asp Val Val Thr Lys Cys Val Ser Phe Thr Leu Thr 100 105 110

Glu Gln Phe Met Glu Lys Phe Val Asp Pro Gly Asn His Asn Ser Gly 115 120 125

Ile Asp Leu Leu Arg Thr Tyr Leu Trp Arg Cys Gln Phe Leu Leu Pro 130 135 140

Phe Val Ser Leu Gly Leu Met Cys Phe Gly Ala Leu Ile Gly Leu Cys 145 150 155 160

Ala Cys Ile Cys Arg Ser Leu Tyr Pro Thr Ile Ala Thr Gly Ile Leu 165 170 175

His Leu Leu Ala Gly Leu Cys Thr Leu Gly Ser Val Ser Cys Tyr Val 180 185 190

Ala Gly Ile Glu Leu Leu His Gln Lys Leu Glu Leu Pro Asp Asn Val 195 200 205

Ser Gly Glu Phe Gly Trp Ser Phe Cys Leu Ala Cys Val Ser Ala Pro 210 215 220

Leu Gln Phe Met Ala Ser Ala Leu Phe Ile Trp Ala Ala His Thr Asn 225 230 235 240

Arg Lys Glu Tyr Thr Leu Met Lys Ala Tyr Arg Val Ala 245 250

<210> 2130

<211> 253

<212> PRT

<213> Homo sapiens

<400> 2130

Met Asp Ash Arg Phe Ala Thr Ala Phe Val Ile Ala Cys Val Leu Ser

1				5					10					15	
Leu	Ile	Ser	Thr 20	Ile	Tyr	Met	Ala	Ala 25	Ser	Ile	Gly	Thr	Asp 30	Phe	Trp
Tyr	Glu	Tyr 35	Arg	Ser	Pro	Val	Gln 40	Glu	Asn	Ser	Ser	Asp 45	Leu	Asn	Lys
Ser	Ile 50	Trp	Asp	Glu	Phe	Ile 55	Ser	Asp	Glu	Ala	Asp 60	Glu	Lys	Thr	Tyr
Asn 65		Ala	Leu	Phe	Arg 70	Tyr	Asn	Gly	Thr	Va1 7.5	Gly	Leu	Trp	Arg	Arg 80
Cys	Ile	Thr	Ile	Pro 85	Lys	Asn	Met	His	Trp 90	Tyr	Ser	Pro	Pro	Glu 95	Arg
Thr	Glu	Ser	Phe 100	Asp	Val	Val	Thr	Lys 105	Cys	Val	Ser	Phe	Thr 110	Leu	Thr
Glu	Gln	Phe 115	Met	Glu	Lys	Phe	Val 120	Asp	Pro	Gly	Asn	His 125	Asn	Ser	Gly
Ile	Asp 130	Leu	Leu	Arg	Thr	Tyr 135	Leu ·	Trp	Arg	Cys	Gln 140	Phe	Leu	Leu	Pro
Phe 145	Val	Ser	Leu	Gly	Leu 150	Met	Cys	Phe	Gly	Ala 155	Leu	Ile	Gly	Leu	Cys 160
Ala	Суѕ	Ile	Суѕ	Arg 165	Ser	Leu	Tyr	Pro	Thr 170	Ile	Ala	Thr	Gly	Ile 175	Leu
His	Leu	Leu	Ala 180	Gly	Leu	Суѕ	Thr	Leu 185	Gly	Ser	Val	Ser	Суs 190	Tyr	Val
Ala	Gly	Ile 195	Glu	Leu	Leu	His	Gln 200	Lys	Leu	Glu	Leu	Pro 205	Asp	Asn	Val

Ser Gly Glu Phe Gly Trp Ser Phe Cys Leu Ala Cys Val Ser Ala Pro 210 215 220

Leu Gln Phe Met Ala Ser Ala Leu Phe Ile Trp Ala Ala His Thr Asn 225 230 235 240

Arg Lys Glu Tyr Thr Leu Met Lys Ala Tyr Arg Val Ala 245 250

<210> 2131

<211> 57

<212> PRT

<213> Homo sapiens

<400> 2131

Met Phe Phe Gln Gly Trp Val Asp Arg Trp Leu Leu Gly Cys Leu Ala $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Pro Gly Gly Phe Ala Ile His Glu Ala Arg Ala Gly Asn Thr Val Ser $20 \\ 25 \\ 30$

Leu Pro Met Val Asp Pro Cys Glu Cys Gln Glu Ala Ser Ser Val
35 40 45

Leu Glu Met Ile Ser Ala Thr Ile Leu 50 55

<210> 2132

<211> 41

<212> PRT

<213> Homo sapiens

<400> 2132

Met Asn Leu Met Val Arg Leu Leu Ala Leu Gly Leu Ile Ser Gly Met $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Met Ser Asn Ile Thr Gln Ser His Ser Ser Lys Ile Ser Ala Phe Gly 20 25 30

Ile Phe Ile Gly Pro Glu Gln Phe Leu 35 40

<210> 2133

<211> 51

<212> PRT

<213> Homo sapiens

<400> 2133

Met Ser Leu Glu Pro Ser Thr Ser Ser Phe Asn Ile Leu Leu Phe Pro 1 5 10 15

Ala Phe Leu Arg Val Phe Gly Trp Ala Leu Gly Trp Met Pro Trp Glu 20 25 30

Tyr Leu Tyr Leu Ser Ser Lys Val Thr Asn Gly Glu Thr Gly Thr Gln 35 40 45

Arg Gly Thr 50

<210> 2134

<211> 60

<212> PRT

<213> Homo sapiens

< 220>

<221> SITE

<322> (10)

<223> Maa equals any of the naturally occurring L-amino acids

< 0.2 0 >

<2221> SITE

<2222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2134

Met Phe Phe Pro Cys Leu Pro Thr Leu Xaa Leu Arg Ile Leu His Ser 1 5 10 15

Gly Trp Val Gly Leu Phe Leu Leu Ile Ser Ser Arg Ala Pro Ser Ser 20 25 30

Ser Leu Ala Trp Lys His Gly Pro Gly Xaa Leu Trp Trp Pro Arg Arg 35 40 45

Pro Leu Arg Ser Cys Thr Gly Leu Ala Ser Cys Gly 50 60

<210> 2135

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2135

Met Phe Phe Pro Cys Leu Pro Thr Leu Xaa Leu Arg Ile Leu His Ser 1 5 10 15

Gly Trp Val Gly Leu Phe Leu Leu Ile Ser Ser Arg Ala Pro Ser Ser 20 25 30

Ser Leu Ala Trp Lys His Gly Pro Gly Glu Leu Trp Trp Pro Arg Xaa 35 40 45

Pro Leu Arg Ser Cys Thr Gly Leu Ala Ser Cys Gly 50 55 60

<210> 2136

<211> 78

<212> PRT

<213> Homo sapiens

<400> 2136

Met Ser Pro His Gln Pro Met Gln Val Ser Ser Ser Lys Thr Ile Leu ${f 1}$ 5 10 10

Trp Leu Val Leu Ser Cys Leu Cys Pro Ser Ser Pro His Pro Val Ile
20 25 30

Ser Gly Leu Pro Gln Trp Tyr Ile Gly Val Leu Ala Gly Ile Val Pro 35 40 45

Val Ala Pro Ile Arg Pro Gly Asp Ser Gly Leu Asp Leu Gln Arg Glu 50 60

Gly Pro Gln Pro Ile Leu Ser Gln Gly Leu Asn Arg Arg Thr
65 70 75

<210> 2137

<211> 78

<212> PRT

<213> Homo sapiens

<400> 2137

Met Ser Pro His Gln Pro Met Gln Val Ser Ser Ser Lys Thr Ile Leu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Trp Leu Val Leu Ser Cys Leu Cys Pro Ser Ser Pro His Pro Val Ile
20 25 30

Ser Gly Leu Pro Gln Trp Tyr Ile Gly Val Leu Ala Gly Ile Val Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Val Ala Pro Ile Arg Pro Gly Asp Ser Gly Leu Asp Leu Gln Arg Glu 50 55 60

Gly Pro Gln Pro Ile Leu Ser Gln Gly Leu Asn Arg Arg Thr 65 70 75

<210> 2138

<211> 144

<212> PRT

<213> Homo sapiens

<400> 2138

Met Ser Ala Val Ser Ala Pro Ala Leu Trp Gln Thr Trp Cys Val Pro
1 5 10 15

Ala Ala Arg Ala Trp Thr Ser Ser Thr Leu Arg His Asp Ala Val Ala 20 25 30

Arg Pro Asn Pro Ser Thr Ser Leu Thr Pro Gly Leu Leu Thr Ser Ser 40° 45

Asp Ser Pro Arg Trp Pro Gly Leu Gln Glu Ala Pro Gly Arg Pro Cys
50 55 60

Ile Arg Leu Gly Arg Ser Glu Leu Cys Met Tyr Ile Tyr Thr Tyr Ile 65 70 75 80

Asp Thr Phe Ile Ile Tyr Thr His Ser Leu Tyr Ile Tyr Ile His Cys

Phe Leu Ala Pro Glu Leu Ile Trp Val Gln Ala His Phe Lys Thr Leu 100 105 110

Pro Gly Gly Gly Cys Fhe Phe Ser Gly Phe Leu Ala Arg Glu Glu Gly

115 120 125

Glu Gly Thr Gly Trp Val Phe Ser Leu Lys Arg Glu Ser Arg Arg Phe 130 135 140

<210> 2139

<211> 151

<212> PRT

<213> Homo sapiens

<400> 2139

Met Leu His Trp Val Leu Ser Phe Phe Phe Leu Leu Ser Cys Pro Arg $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Thr Glu Gly Leu Pro Gly Leu Tyr Cys Pro Gly Cys Ser Gln Cys Pro
20 25 30

Gly Arg Gly Met Trp Pro Gly Asp Pro Gly Pro Gly Ile Gln Gly Pro 35 40 45

Gly Leu Asp Leu Arg Thr Gly Met Glu Ala Thr Gly Ala Gln Gln Pro 50 60

Thr Leu Ser Ser Pro His Cys Leu Leu Ser Leu Pro Thr Leu Pro Ala 65 70 75 80

Arg Ala Val Gln Leu Arg Trp Asp Leu Ser Ile Ser Arg Ala Gly Gly 85 90 95

Arg Val Ala Val Leu Gly Leu Cys Leu Glu Pro Gly Gly Ser Leu Leu 100 105 110

Leu Pro Pro Ser Ala Leu Pro Glu Thr Asp Pro Cys Ala Ala Cys Pro 115 120 125

Pro Cys Pro Phe Val Pro Met Ser Gly Gly Gly Gly Arg Pro Thr Val 130 135 140

Pro Glu Ala Gly His Gln Pro 145 150

<210> 2140

<211> 173

<212> PRT

<213> Homo sapiens

<400> 2140

Met Pro Pro Tyr Thr Pro Phe Phe Gly Thr Arg Ala Leu Leu Ser Val 1 5 10 15

Ser Leu Pro Pro Cys Met Leu His Trp Val Leu Ser Phe Phe Phe 20 25 30

Leu Leu Ser Cys Pro Arg Thr Glu Gly Leu Pro Gly Leu Tyr Cys Pro
40 45

Gly Cys Ser Gln Cys Pro Gly Arg Gly Met Trp Pro Gly Asp Pro Gly 50 55 60

Pro Gly Ile Gln Gly Pro Gly Leu Asp Leu Arg Thr Gly Met Glu Ala 65 70 75 80

Thr Gly Ala Gln Gln Pro Thr Leu Ser Ser Pro His Cys Leu Leu Ser 85 90 95

Leu Pro Thr Leu Pro Ala Arg Ala Val Gln Leu Arg Trp Asp Leu Ser 100 105 110

Ile Ser Arg Ala Gly Gly Arg Val Ala Val Leu Gly Leu Cys Leu Glu 115 120 125

Pro Gly Gly Ser Leu Leu Pro Pro Ser Ala Leu Pro Glu Thr Asp 130 135 140

Pro Cys Ala Ala Cys Pro Pro Cys Pro Phe Val Pro Met Ser Gly Gly 145 150 155 160

Gly Gly Arg Pro Thr Val Pro Glu Ala Gly His Gln Pro 165 170

<210> 2141

<211> 82

<212> PRT

<213> Homo sapiens

<400> 2141

Met Asn Arg Ser Thr Arg Ser Tyr Arg Cys Trp Ala Thr Trp Pro Arg 1 5 10 15

Leu Gly Trp Ala Leu Pro Cys Cys Met Asn Ser Leu Arg Lys Gly Arg 20 25 30

Lys Phe Ser Gln Ile Thr Thr Ser Leu Met Ala Ser Val Ser Ser Ala 35 40 45

Ser Met Val Ser Arg Arg Arg Pro Leu Pro Lys His Pro Val Thr 50 55 60

Thr Thr Ser Thr Ala Thr Ala Leu Leu Gly Thr Ser Ser Thr Trp Ser 65 70 75 80

Lys Ser

<210> 2142

<211> 53

<212> PRT

<213> Homo sapiens

<400> 2142

Met Gly Gln Arg Gly Val Phe Leu Leu Ile Leu Asp Ala Phe Ser Val.
1 5 10 15

Pro Ser Thr Ala Ser Cys Leu Ile Thr Pro Leu Pro Pro Pro His Pro 20 25 30

Gln Pro Ser Gln Phe Phe Leu Ala Ser Ala Leu Gln Pro Tyr Leu Gly 35 40 45

Lys Glu Glu Trp Val 50

<210> 2143

<211> 53

<212> PRT

<213> Homo sapiens

<400> 2143

Met Gly Gln Arg Gly Val Phe Leu Leu Ile Leu Asp Ala Phe Ser Val 1 5 10 15

Pro Ser Thr Ala Ser Cys Leu Ile Thr Pro Leu Pro Pro Pro His Pro
20 25 30

Gln Pro Ser Gln Phe Phe Leu Ala Ser Ala Leu Gln Pro Tyr Leu Gly 35 40 45

Lys Glu Glu Trp Val 50

<210> 2144

<211> 53

<212> PRT

<213> Homo sapiens

<400> 2144

Met Gly Gln Arg Gly Val Phe Leu Leu Ile Leu Asp Ala Phe Ser Val 1 5 10 15

Pro Ser Thr Ala Ser Cys Leu Ile Thr Pro Leu Pro Pro Pro His Pro 20 25 30

Gln Pro Ser Gln Phe Phe Leu Ala Ser Ala Leu Gln Pro Tyr Leu Gly $35 \hspace{1cm} 40 \hspace{1cm} 45$

Lys Glu Glu Trp Val 50

<210> 2145

<211> 97

<212> PRT

<213> Homo sapiens

<400> 2145

Met Leu Trp Lys Leu Lys Leu Ser Arg Cys Trp Leu Asp Leu Thr Leu 1 5 10 15

Leu Ile Phe Ser Gln Ile Ser His Met Asp Gln Ile Ile Phe Phe Phe 20 25 30

Val Val Tyr Pro Ile Leu Asn Asn Ile Phe Ser Leu Asn Tyr Cys Arg \$40\$

Asp Phe Phe Cys Gly Gly Tyr Phe Leu Phe Cys Ser Lys Ile Ile Arg 50 55 60

Cys Lys Ala Ile Leu Cys Leu Thr Val Ala Leu Ser Lys Gln Leu Cys 65 70 75 80

Ser Gly Val Ala Phe Asp Val Leu Glu Phe Asp Tyr Met Gln Ser Cys 85 90 95

Ile

<210> 2146

<211> 122

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2146

Met Met Thr Met Thr Ser Asp Arg Trp Phe Ser Met Ala Trp Ala Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Cys Ser Leu Ser Arg Pro Pro Leu Thr Pro Ser Cys Ser Cys Gln Gln 20 25 30

Pro Ala Thr Val Ala Leu Leu Gln Thr Ile Ser Val Cys Ser Ala 35 40 45

Gln Gln Ala Asp Pro Leu Ser Pro Pro Arg Ala Cys Arg Pro Xaa Arg 50 55

Gln Phe Pro Val Leu Gln Ser Ala Gly Pro Pro His Ser Pro His Val 65 70 75 80

Tyr Ala Phe Val Leu Phe Pro Val Ser Ser Arg Trp Gln Gly Gly Asp 85 90 95

Phe Cys Xaa Ile Cys Cys Cys Phe Pro Gln Cys Leu Gly Arg Cys Leu 100 105 110

Glu His Thr Arg Cys Ser Ile Asn Pro Xaa 115 120

<210> 2147

<211> 99

<212> PRT

<213> Homo sapiens

<400> 2147

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser 1 5 10 15

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys
20 25 30

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys 35 40 45

Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln 50 . 55 60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly 65 70 75 80

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Arg Ser Pro Trp His
85 90 95

Pro Gly Asn

<210> 2148

<211> 245

<212> PRT

<213> Homo sapiens

<400> 2148

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser 1 5 10 15

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys
20 25 30

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys 35 40 45

Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln
50 55 60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly
65 70 75 80

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile 85 90 95

Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln 100 105 110

Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly 115 120 125

Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr 130 135 140

Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr 145 150 155 160

Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val 165 170 175

Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr 180 185 190

Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln 195 200 205

Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly 210 215 220

His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu 225 230 235 240

Ile Phe Pro Ser Ala 245

<210> 2149

<211> 57

<212> PRT

<213> Homo sapiens

<400> 2149

Met Gly His Leu His Trp Gly Val Ser Gly Asn Phe Phe Pro Arg

1 5 10 15

Leu Ser Leu Phe Leu Leu Phe Ala Trp Leu Gln Ile Thr Gln Ala Asn 20 25 30

Glu Pro Arg Leu Pro Gly Lys Tyr Ser Ile Lys Ala Ile Lys Ile Thr 35 40 45

Ile Cys Ile Thr Phe Arg Thr Ser Ala

<210> 2150

<211> 152

<212> PRT

<213> Homo sapiens

<400> 2150

Met Gly Val His Val Gly Ala Ala Leu Gly Ala Leu Trp Phe Cys Leu 1 5 10 15

Thr Gly Ala Leu Glu Val Gln Val Pro Glu Asp Pro Val Val Ala Leu 20 25 30

Val Gly Thr Asp Ala Thr Leu Cys Cys Ser Phe Ser Pro Glu Pro Gly 35 40 45

Phe Ser Leu Ala Gln Leu Asn Leu Ile Trp Gln Leu Thr Asp Thr Lys 50 55 60

Gln Leu Val His Ser Phe Ala Glu Gly Gln Asp Gln Gly Ser Ala Tyr 65 70 75 80

Ala Asn Arg Thr Ala Leu Phe Leu Asp Leu Leu Ala Gln Gly Asn Ala 85 90 95

Ser Leu Arg Leu Gln Ser Val Arg Val Ala Asp Glu Gly Gln Leu His 100 105 110

Leu Leu Arg Glu His Pro Gly Phe Arg Gln Arg Cys Arg Gln Pro Ala 115 120 125

Gly Gly Arg Ser Leu Leu Glu Ala Gln His Asp Pro Gly Ala Gln Gln 130 135 140

Gly Pro Ala Ala Arg Gly Thr Trp 145 150

<210> 2151

<211> 302

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2151

Met Arg Leu Gly Ser Pro Gly Leu Leu Phe Leu Leu Phe Ser Ser Leu 1 5 10 15

Arg Ala Asp Thr Gln Glu Lys Glu Val Arg Ala Met Val Gly Ser Asp

Val Glu Leu Ser Cys Ala Cys Pro Glu Gly Ser Arg Phe Asp Leu Asn 35 40 45

Asp Val Tyr Val Tyr Trp Gln Thr Ser Glu Ser Lys Thr Val Val Thr 50 55 60

Tyr His Ile Pro Gln Asn Ser Ser Leu Glu Asn Val Asp Ser Arg Tyr 65 70 75 80

Arg Asn Arg Ala Leu Met Ser Fro Ala Gly Met Leu Arg Gly Asp Phe 85 90 95

Ser Leu Arg Leu Phe Asn Val Thr Pro Gln Asp Glu Gln Lys Phe His 100 105 110

Cys Leu Val Leu Ser Gln Ser Leu Gly Phe Gln Glu Val Leu Ser Xaa 115 120 125

Glu Val Thr Leu His Val Ala Ala Asn Phe Ser Val Pro Val Val Ser 130 140

Ala Pro His Ser Pro Ser Gln Asp Glu Leu Thr Phe Thr Cys Thr Ser 145 150 155 160

Ile Asn Gly Tyr Pro Arg Pro Asn Val Tyr Trp Ile Asn Lys Thr Asp 165 170 175

Asn Ser Leu Leu Asp Gln Ala Leu Gln Asn Asp Thr Val Phe Leu Asn 180 185 190

Met Arg Gly Leu Tyr Asp Val Val Ser Val Leu Arg Ile Ala Arg Thr 195 200 205

Pro Ser Val Asn Ile Gly Cys Cys Ile Glu Asn Val Leu Leu Gln Gln 210 215 220

Asn Leu Thr Val Gly Ser Gln Thr Gly Asn Asp Ile Gly Glu Arg Asp 225 230 235 240

Lys Ile Thr Glu Asn Pro Val Ser Thr Gly Glu Lys Asn Ala Ala Thr $245 \hspace{1.5cm} 250 \hspace{1.5cm} 255$

Trp Ser Ile Leu Ala Val Leu Cys Leu Leu Val Val Val Ala Val Ala 260 265 270

Ile Gly Trp Val Cys Arg Asp Arg Cys Leu Gln His Ser Tyr Ala Gly 275 280 285

Ala Trp Ala Val Ser Pro Glu Thr Glu Leu Thr Gly His Val 290 295 300

<210> 2152

<211> 316

<212> PRT

<213> Homo sapiens

<400> 2152

Met Leu Arg Arg Arg Gly Ser Pro Gly Met Gly Val His Val Gly Ala $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ala Leu Gly Ala Leu Trp Phe Cys Leu Thr Gly Ala Leu Glu Val Gln 20 25 30

Val Pro Glu Asp Pro Val Val Ala Leu Val Gly Thr Asp Ala Thr Leu 35 40 45

Cys Cys Ser Phe Ser Pro Glu Pro Gly Phe Ser Leu Ala Gln Leu Asn

50 55 60

Leu Ile Trp Gln Leu Thr Asp Thr Lys Gln Leu Val His Ser Phe Ala 65 70 75 80

Glu Gly Gln Asp Gln Gly Ser Ala Tyr Ala Asn Arg Thr Ala Leu Phe \$85\$ 90 95

Pro Asp Leu Leu Ala Gln Gly Asn Ala Ser Leu Arg Leu Gln Arg Val
100 105 110

Arg Val Ala Asp Glu Gly Ser Phe Thr Cys Phe Val Ser Ile Arg Asp 115 120 125

Phe Gly Ser Ala Ala Val Ser Leu Gln Val Ala Ala Pro Tyr Ser Lys 130 135 140

Pro Ser Met Thr Leu Glu Pro Asn Lys Asp Leu Arg Pro Gly Asp Thr 145 150 155 160

Val Thr Ile Thr Cys Ser Ser Tyr Gln Gly Tyr Pro Glu Ala Glu Val 165 170 175

Phe Trp Gln Asp Gly Gln Gly Val Pro Leu Thr Gly Asn Val Thr Thr 180 185 190

Ser Gln Met Ala Asn Glu Gln Gly Leu Phe Asp Val His Ser Ile Leu 195 200 205

Arg Val Val Leu Gly Ala Asn Gly Thr Tyr Ser Cys Leu Val Arg Asn 210 215 220

Pro Val Leu Gln Gln Asp Ala His Ser Ser Val Thr Ile Thr Gly Gln 225 230 235 240

Pro Met Thr Phe Pro Pro Glu Ala Leu Trp Val Thr Val Gly Leu Ser 245 250 255

Val Cys Leu Ile Ala Leu Leu Val Ala Leu Ala Phe Val Cys Trp Arg 260 265 270

Lys Ile Lys Gln Ser Cys Glu Glu Glu Asn Ala Gly Ala Glu Asp Gln 275 280 285

Asp Gly Glu Gly Glu Gly Ser Lys Thr Ala Leu Gln Pro Leu Lys His 290 295 300

Ser Asp Ser Lys Glu Asp Asp Gly Gln Glu Ile Ala 305 310 315

<210> 2153

<211> 831

<212> PRT

<213> Homo sapiens

<400> 2153

Met Lys Val His Met His Thr Lys Phe Cys Leu Ile Cys Leu Leu Thr
1 5 10 15

Phe	Ile	Phe	H15 20	His	Cys	Asn	Hıs	Суs 25	His	Glu	G±u	His	Asp 30	His	Gly
Pro	Glu	Ala 35	Leu	His	Arg	Gln	His 40	Arg	Gly	Met	Thr	Glu 45	Leu	Glu	Pro
Ser	Lys 50	Phe	Ser	Lys	Gln	Ala 55	Ala	Glu	Asn	Glu	iys 60	Lys	Tyr	Tyr	Ile
Glu 65	Lys	Leu	Phe	Glu	Arg 70	Tyr	Gly	Glu	Asn	Gly 75	Arg	Leu	Ser	Phe	Phe 80
Gly	Leu	Glu	Lys	Leu 85	Leu	Thr	Asn	Leu	Gly 90	Leu	Gly	Glu	Arg	Lys 95	Val
Val	Glu	Ile	Asn 100	His	Glu	Asp	Leu	Gly 105	His	Asp	His	Val	Ser 110	His	Leu
Asp	Ile	Leu 115	Ala	Val	Gln	Glu	Gly 120	Lys	His	Phe	His	Ser 125	His	Asn	His
Gln	His 130	Ser	His	Asn	His	Leu 135	Asn	Ser	Glu	Asn	Gln 140	Thr	Val	Thr	Ser
Val 145	Ser	Thr	Lys	Arg	Asn 150	His	Lys	Cys	Asp	Pro 155	Glu	Lys	Glu	Thr	Val 160
Glu	Val	Ser	Val	Lys 165	Ser	Asp	Asp	Lys	His 170	Met	His	Asp	His	Asn 175	His
Arg	Leu	Arg	His 180	His	His	Arg	Leu	His 185	His	His	Leu	Asp	His 190	Asn	Asn ·
Thr	His	His 195	Phe	His	Asn	Asp	Ser 200	Ile	Thr	Pro	Ser	Glu 205	Arg	Gly	Glu
Pro	Ser 210	Asn	Glu	Pro	Ser	Thr 215	Glu	Thr	Asn	Lys	Thr 220	Gln	Glu	Gln	Ser
Asp 225	Val	Lys	Leu	Pro	Lys 230	Gly	Lys	Arg	Lys	Lys 235	Lys	Gly	Arg	Lys	Ser 240
Asn	Glu	Asn	Ser	Glu 245	Val	Ile	Thr	Pro	Gly 250	Phe	Pro	Pro	Asn	His 255	Asp
Gln	Gly	Glu	Gln 260	Tyr	Glu	His	Asn	Arg 265	Val	His	Lys	Pro	Asp 270	Arg	Val
His	Asn	Pro 275	Gly	His	Ser	His	Val 280	His	Leu	Pro	Glu	Arg 285	Asn	Gly	His
Asp	Pro 290	Gly	Arg	Gly	His	Gln 295	Asp	Leu	Asp	Pro	Asp 300	Asn	Glu	Gly	Glu
Leu 305	Arg	His	Thr	Arg	Lys 310	Arg	Glu	Ala	Pro	His 315	Val	Lys	Asn	Asn	Ala 320
Ile	Ile	Ser	Leu	Arg 325	Lys	Asp	Leu	Asn	Glu 330	Aşp	Asp	His	His	His 335	GI::

Cys Leu Asn Val Thr Gln Leu Leu Lys Tyr Tyr Gly His Gly Ala Asn 345 Ser Pro Ile Ser Thr Asp Leu Phe Thr Tyr Leu Cys Pro Ala Leu Leu 360 Tyr Gln Ile Asp Ser Arg Leu Cys Ile Glu His Phe Asp Lys Leu Leu Val Glu Asp Ile Asn Lys Asp Lys Asn Leu Val Pro Glu Asp Glu Ala 390 395 Asn Ile Gly Ala Ser Ala Trp Ile Cys Gly Ile Ile Ser Ile Thr Val 410 Ile Ser Leu Leu Ser Leu Leu Gly Val Ile Leu Val Pro Ile Ile Asn 425 Gln Gly Cys Phe Lys Phe Leu Leu Thr Phe Leu Val Ala Leu Ala Val 435 Gly Thr Met Ser Gly Asp Ala Leu Leu His Leu Leu Pro His Ser Gln Gly Gly His Asp His Ser His Gln His Ala His Gly His Gly His Ser His Gly His Glu Ser Asn Lys Phe Leu Glu Glu Tyr Asp Ala Val Leu 490 485 Lys Gly Leu Val Ala Leu Gly Gly Ile Tyr Leu Leu Phe Ile Ile Glu 505 His Cys Ile Arg Met Phe Lys His Tyr Lys Gln Gln Arg Gly Lys Gln Lys Trp Phe Met Lys Gln Asn Thr Glu Glu Ser Thr Ile Gly Arg Lys 535 Leu Ser Asp His Lys Leu Asn Asn Thr Pro Asp Ser Asp Trp Leu Gln 545 550 555 Leu Lys Pro Leu Ala Gly Thr Asp Asp Ser Val Val Ser Glu Asp Arg Leu Asn Glu Thr Glu Leu Thr Asp Leu Glu Gly Gln Gln Glu Ser Pro 585 Pro Lys Asn Tyr Leu Cys Ile Glu Glu Glu Lys Ile Ile Asp His Ser 600 His Ser Asp Gly Leu His Thr Ile His Glu His Asp Leu His Ala Ala Ala His Asn His His Gly Glu Asn Lys Thr Val Leu Arg Lys His Asn 625 His Gln Trp His His Lys His Ser His Ser His Gly Pro Cys His 645 650

Ser Gly Ser Asp Leu Lys Glu Thr Gly Ile Ala Asn Ile Ala Trp Met 660 670

- Val Ile Met Gly Asp Gly Ile His Asn Phe Ser Asp Gly Leu Ala Ile 675 680 685
- Gly Ala Ala Phe Ser Ala Gly Leu Thr Gly Gly Ile Ser Thr Ser Ile 690 695 700
- Ala Val Phe Cys His Glu Leu Pro His Glu Leu Gly Asp Phe Ala Val 705 710 715 720
- Leu Leu Lys Ala Gly Met Thr Val Lys Gln Ala Ile Val Tyr Asn Leu 725 730 735
- Leu Ser Ala Met Met Ala Tyr Ile Gly Met Leu Ile Gly Thr Ala Val740 745 750
- Gly Gln Tyr Ala Asn Asn Ile Thr Leu Trp Ile Phe Ala Val Thr Ala 755 760 765
- Gly Met Phe Leu Tyr Val Ala Leu Val Asp Met Leu Pro Glu Met Leu 770 780
- His Gly Asp Gly Asp Asn Glu Glu His Gly Phe Cys Pro Val Gly Gln 785 790 795 800
- Phe Ile Leu Gln Asn Leu Gly Leu Leu Phe Gly Phe Ala Ile Met Leu 805 810 815
- Val Ile Ala Leu Tyr Glu Asp Lys Ile Val Phe Asp Ile Gln Phe 820 \$825\$

<210> 2154

<211> 480

<212> PRT

<213> Homo sapiens

<400> 2154

- Met Leu Phe Arg Asn Arg Phe Leu Leu Leu Leu Ala Leu Ala Ala Leu 1 5 10 15
- Leu Ala Phe Val Ser Leu Ser Leu Gln Phe Phe His Leu Ile Pro Val 20 25 30
- Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys Arg Ile Met 35 40 45
- Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro Val Tyr Glu Ala 50 55 60
- Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu Arg Ser Met Glu Gly 65 70 75 80
- His Ala Pro His His Phe Lys Leu Val Ser Val His Val Phe Ile Arg 85 90 95

His Gly Asp Arg Tyr Pro Leu Tyr Val Ile Pro Lys Thr Lys Arg Pro Glu Ile Asp Cys Thr Leu Val Ala Asn Arg Lys Pro Tyr His Pro Lys 120 Leu Glu Ala Phe Ile Ser His Met Ser Lys Gly Ser Gly Ala Ser Phe 135 Glu Ser Pro Leu Asn Ser Leu Pro Leu Tyr Pro Asn His Pro Leu Cys Glu Met Gly Glu Leu Thr Gln Thr Gly Val Val Gln His Leu Gln Asn Gly Gln Leu Leu Arg Asp Ile Tyr Leu Lys Lys His Lys Leu Leu Pro Asn Asp Trp Ser Ala Asp Gln Leu Tyr Leu Glu Thr Thr Gly Lys Ser Arg Thr Leu Gln Ser Gly Leu Ala Leu Leu Tyr Gly Phe Leu Pro Asp 215 Phe Asp Trp Lys Lys Ile Tyr Phe Arg His Gln Pro Ser Ala Leu Phe 230 235 Cys Ser Gly Ser Cys Tyr Cys Pro Val Arg Asn Gln Tyr Leu Glu Lys Glu Gln Arg Arg Gln Tyr Leu Leu Arg Leu Lys Asn Ser Gln Leu Glu Lys Thr Tyr Gly Glu Met Ala Lys Ile Val Asp Val Pro Thr Lys Gln 280 Leu Arg Ala Ala Asn Pro Ile Asp Ser Met Leu Cys His Phe Cys His 295 Asn Val Ser Phe Pro Cys Thr Arg Asn Gly Cys Val Asp Met Glu His Phe Lys Val Ile Lys Thr His Gln Ile Glu Asp Glu Arg Glu Arg Arg . Glu Lys Lys Leu Tyr Phe Gly Tyr Ser Leu Leu Gly Ala His Pro Ile Leu Asn Gln Thr Ile Gly Arg Met Gln Arg Ala Thr Glu Gly Arg Lys 355 360 Glu Glu Leu Phe Ala Leu Tyr Ser Ala His Asp Val Thr Leu Ser Pro Val Leu Ser Ala Leu Gly Leu Ser Glu Ala Arg Phe Pro Arg Phe Ala Ala Arg Leu Ile Phe Glu Leu Trp Gln Asp Arg Glu Lys Pro Ser Glu 410 405

His Ser Val Arg Ile Leu Tyr Asn Gly Val Asp Val Thr Phe His Thr 420 425 430

Ser Phe Cys Gln Asp His His Lys Arg Ser Pro Lys Pro Met Cys Pro 435 440 445

Leu Glu Asn Leu Val Arg Phe Val Lys Arg Asp Met Phe Val Ala Leu 450 455 460

Gly Gly Ser Gly Thr Asn Tyr Tyr Asp Ala Cys His Arg Glu Gly Phe 465 470 475 480

<210> 2155

<211> 151

<212> PRT

<213> Homo sapiens

<400> 2155

Met Phe Leu Met Leu Gly Cys Ala Leu Pro Ile Tyr Asn Lys Tyr Trp 1 5 10 15

Pro Leu Phe Val Leu Phe Phe Tyr Ile Leu Ser Pro Ile Pro Tyr Cys 20 25 30

Ile Ala Arg Arg Leu Val Asp Asp Thr Asp Ala Met Ser Asn Ala Cys 35 40 45

Lys Glu Leu Ala Ile Phe Leu Thr Thr Gly Ile Val Val Ser Ala Phe 50 60

Gly Leu Pro Ile Val Phe Ala Arg Ala His Leu Met Gly Arg Leu Pro 65 70 75 80

Phe Phe Ser Lys Met Gly Thr Ala Glu Ser Glu Gly Arg Glu Thr Leu 85 90 95

Thr Gln Gln Leu Pro Leu Pro Ala Ala Ala Met Arg Arg Leu Leu Pro

Ala Ser Arg Val Ser Thr Gln Pro Val Leu Arg Leu Ala Asp Ser Ala 115 120 125

Glu Ser Leu Leu Gly Arg Pro Ala Leu Trp Ala Leu Gly Phe Leu Leu 130 135 140

Cys Pro Pro Ser Gln Ala Gln 145 150

<210> 2156

<211> 89

<212> PRT

<213> Homo sapiens

<400> 2156

Met Tyr Met Gln Asp Tyr Trp Arg Thr Trp Leu Lys Gly Leu Arg Gly
1 5 10 15

Phe Phe Phe Val Gly Val Leu Phe Ser Ala Val Ser Ile Ala Ala Phe 20 25 30

Cys Thr Phe Leu Val Leu Ala Ile Thr Arg His Gln Ser Leu Thr Asp 35 40 45

Pro Thr Ser Tyr Tyr Leu Ser Ser Val Trp Ser Phe Ile Ser Phe Lys 50 60

Trp Ala Phe Leu Leu Ser Leu Tyr Ala His Arg Tyr Arg Ala Asp Phe 65 70 75 80

Ala Asp Ile Ser Ile Leu Ser Asp Phe 85

<210> 2157

<211> 56

<212> PRT

<213> Homo sapiens

<400> 2157

Met Arg Gly His Ile Thr Thr Leu Leu Thr Thr Ser Phe Leu Val Phe $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gly Leu His Ile Ile Phe Phe Leu Asn Ile Ser Cys Phe Asn Phe Arg 20 25 30

Val Phe Ile Leu Phe Glu Thr Arg Pro Glu Asp Ser Arg Leu Tyr Arg 35 40 45

Glu Arg Pro Val Leu Pro Arg Tyr 50 55

<210> 2158

<211> 50

<212> PRT

<213> Homo sapiens

<400> 2158

Met Gln Val Lys Asn Ser Ile His Val Thr Phe Val Ala Arg Ile Leu
1 5 10 15

Val Arg Val Leu Ile Cys Leu Ser Thr Ser Glu Ala Ile Leu Ala Arg 20 25 30

Asn His Ile Tyr Val Val Ser Val Thr Asn Ala Ser Val Glu Val Gln 35 40 45

Thr Ser

50

<210> 2159

<211> 50

<212> FRT

<213> Homo sapiens

<400> 2159

Met Gln Val Lys Asn Ser Ile His Val Thr Fhe Val Ala Arg Ile Leu

1 5 10 15

Val Arg Val Leu Ile Cys Leu Ser Thr Ser Glu Ala Ile Leu Ala Arg
20 25 30

Asn His Ile Tyr Val Val Ser Val Thr Asn Ala Ser Val Glu Val Gln 35 40 45

Thr Ser 50

<210> 2160

<211> 81

<212> PRT

<213> Homo sapiens

<400> 2160

Met Arg Leu Leu Val Leu Ser Ser Leu Leu Cys Ile Leu Leu Cys 1 5 10 15 15 $^{\circ}$

Phe Ser Ile Phe Ser Thr Glu Gly Lys Arg Arg Pro Ala Lys Ala Trp 20 25 30

Ser Gly Arg Arg Thr Arg Leu Cys Cys His Arg Val Pro Ser Pro Asn 35 40 45

Ser Thr Asn Leu Lys Gly His His Val Arg Leu Cys Lys Pro Cys Lys 50 60

Leu Glu Pro Glu Pro Arg Leu Trp Val Val Pro Gly Ala Leu Pro Gln 65 70 75 . 80

Val

<210> 2161

<211> 73

<212> PRT

<213> Homo sapiens

<400> 2161

Met Asn Ile Thr Arg Lys Leu Trp Ser Arg Thr Phe Asn Cys Ser Val 1 5 10 15

Pro Cys Ser Asp Thr Val Pro Val Ile Ala Val Ser Val Phe Ile Leu 20 25 30

Phe Leu Pro Val Val Phe Tyr Leu Ser Ser Phe Leu His Ser Glu Gln

35 40 45

Lys Lys Arg Lys Leu Ile Leu Pro Lys Arg Leu Lys Ser Ser Thr Ser 50 60

Phe Ala Asn Ile Gln Glu Asn Ser Asn 65 70

<210> 2162

<211> 193

<212> PRT

<213> Homo sapiens

<400> 2162

Met Glu Pro Gly Pro Thr Ala Ala Gln Arg Arg Cys Ser Leu Pro Pro 1 5 10 15

Trp Leu Pro Leu Gly Leu Leu Trp Ser Gly Leu Ala Leu Gly Ala 20 25 30

Leu Pro Phe Gly Ser Ser Pro His Arg Val Phe His Asp Leu Leu Ser 35 40 45

Glu Gln Gln Leu Leu Glu Val Glu Asp Leu Ser Leu Ser Leu Gln 50 55 60

Gly Gly Leu Gly Pro Leu Ser Leu Pro Pro Asp Leu Pro Asp Leu 65 70 75 80

Asp Pro Glu Cys Arg Glu Leu Leu Leu Asp Phe Ala Asn Ser Ser Ala 85 90 95

Glu Leu Thr Gly Cys Leu Val Arg Ser Ala Arg Pro Val Arg Leu Cys 100 105 110

Gln Thr Cys Tyr Pro Leu Phe Gln Gln Val Val Ser Lys Met Asp Asn 115 120 125

Ile Ser Arg Ala Ala Gly Asn Thr Ser Glu Ser Gln Ser Cys Ala Arg 130 135 140

Ser Leu Leu Met Ala Asp Arg Met Gln Ile Val Val Ile Leu Ser Glu 145 150 155 160

Phe Phe Asn Thr Trp Gln Glu Ala Asn Cys Ala Asn Cys Leu Thr 165 170 175

Asn Asn Ser Glu Glu Leu Ser Asn Ser Thr Val Tyr Phe Leu Lys Ser 180 185 190

Ile

<210> 2163

<211> 134

<212> PRT

<213> Homo sapiens

<400> 2163

Met Ala Pro Glu Val Met Glu Gln Val Arg Gly Tyr Asp Phe Lys Ala 1 5 10 15

Asp Ile Trp Ser Phe Gly Ile Thr Ala Ile Glu Leu Ala Thr Gly Ala 20 25 30

Ala Pro Tyr His Lys Tyr Pro Pro Met Lys Val Leu Met Leu Thr Leu 35 40 45

Gln Asn Asp Pro Pro Ser Leu Glu Thr Gly Val Gln Asp Lys Glu Met 50 60

Leu Lys Lys Tyr Gly Lys Ser Phe Arg Lys Met Ile Ser Leu Cys Leu 65 70 75 80

Gln Lys Asp Pro Glu Lys Arg Pro Thr Ala Ala Glu Leu Leu Arg His 85 90 95

Lys Phe Phe Gln Lys Ala Lys Asn Lys Glu Phe Leu Gln Glu Lys Thr $_{_{\rm I}}$ 100 $_{_{\rm I}}$ 105 $_{_{\rm I}}$ 110

Leu Gln Arg Ala Pro Thr Ile Ser Glu Arg Ala Lys Lys Val Arg Arg 115 120 125

Val Pro Gly Ser Cys Pro

<210> 2164

<211> 334

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2164

Met Glu Pro Gly Pro Thr Ala Ala Gln Arg Arg Cys Ser Leu Pro Pro 1 5 10 15

Trp Leu Pro Leu Gly Leu Leu Trp Ser Gly Leu Ala Leu Gly Ala 20 25 30

Leu Pro Phe Gly Ser Ser Pro His Arg Val Phe His Asp Leu Leu Ser 35 40 45

Glu Gln Gln Leu Leu Glu Val Glu Asp Leu Ser Leu Ser Leu Gln 50 55 60

Gly Gly Gly Leu Gly Pro Leu Ser Leu Pro Pro Asp Leu Pro Asp Leu 65 70 75 80

Asp Pro Glu Cys Arg Glu Leu Leu Leu Asp Phe Ala Asn Ser Ser Ala 85 90 95

Glu Leu Thr Gly Cys Leu Val Arg Xaa Ala Arg Pro Val Arg Leu Cys 105 Gln Thr Cys Tyr Pro Leu Phe Gln Gln Val Val Ser Lys Met Asp Asn 120 Ile Ser Arg Ala Ala Gly Asn Thr Ser Glu Ser Gln Ser Cys Ala Arg 135 Ser Leu Leu Met Ala Asp Arg Met Gln Ile Val Val Ile Leu Ser Glu Phe Phe Asn Thr Trp Gln Glu Ala Asn Cys Ala Asn Cys Leu Thr 170 Asn Asn Ser Glu Glu Leu Ser Asn Ser Thr Val Tyr Phe Leu Asn Leu 185 Phe Asn His Thr Leu Thr Cys Phe Glu His Asn Leu Gln Gly Asn Ala. His Ser Leu Leu Gln Thr Lys Asn Tyr Ser Glu Val Cys Lys Asn Cys 215 Arg Glu Ala Tyr Lys Thr Leu Ser Ser Leu Tyr Ser Glu Met Gln Lys 230 235 Met Asn Glu Leu Glu Asn Lys Ala Glu Pro Gly Thr His Leu Cys Ile 245 Asp Val Glu Asp Ala Met Asn Ile Thr Arg Lys Leu Trp Ser Arg Thr 265

Phe Asn Cys Ser Val Pro Cys Ser Asp Thr Val Pro Val Ile Ala Val 275 280 285

Ser Val Phe Ile Leu Phe Leu Pro Val Val Phe Tyr Leu Ser Ser Phe 290 295 300

Leu His Ser Glu Gln Lys Lys Arg Lys Leu Ile Leu Pro Lys Arg Leu 305 310 315 320

Lys Ser Ser Thr Ser Phe Ala Asn Ile Glu Asn Ser Asn 325 330

<210> 2165

<211> 49

<212> PRT

<213> Homo sapiens

<400> 2165

Met Val Leu Val Phe Ala Tyr Leu Cys Val Leu Leu Ile Val Cys Trp

1 5 10 15

Val Thr Ser Lys Thr Ser Leu Ala Leu Lys Tyr Thr Val Tyr Lys Asn 20 25 30

Fhe Lys Arg Leu Ile Trp Asn Lys Ser Ile Leu Ile Ile Thr Leu Thr 35 40 45

Pro

<210> 2166

<211> 75

<212> PRT

<213> Homo sapiens

<400> 2166

Met Ser Leu Ser Ile Leu Val Ala Leu Ser Leu Gln Ile Leu Phe Leu 1 5 10 15

Phe Thr Ile Leu Lys Cys Met Leu Ala Lys Trp Val Asp Phe Gln Ile 20 25 30

Lys Cys Ser Phe His Lys Ser Phe Val Met Val Phe Trp Ser Glu Met 35 40 45

His Phe His Phe Ser Phe Leu Phe Leu Ser Ile Leu Ser Phe Phe 50 55 60

Pro Asn Lys Ile Tyr Pro Gly Asp Tyr Ile Cys
65 70 75

<210> 2167

<211> 86

<212> PRT

<213> Homo sapiens

<400> 2167

Met Leu Trp Ala Leu Asp Ser Leu Leu Phe Phe Ser His Ala Gln Leu 1 5 10 15

Val Pro Leu Gly Gly Glu Glu Trp Gly Ser Pro Gly Leu Gly Leu 20 25 30

His Ser Ile Ile Pro Ser Gln Ala Ser Gln Gly Val Ser Ala Pro Ala 35 40 45

Gln Asp Leu Ala Gly Arg Ala Pro Tyr Arg Glu Ser Leu Gly Arg Leu
50 60

Ser Arg Leu Met Ala Gly Pro Ala Arg Gly Val Leu Arg Pro Ala Leu 65 70 75 80

Arg Thr Cys Pro Leu Phe 85

<210> 2168

<211> 152

<312> PRT

<213> Homo sapiens

<400> 2168

Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp

1 5 10 15

Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val 20 25 30

Lys His Trp Pro Ser Glu Gln Asp Pro Glu Asn Arg Ala Trp Gly Ala 35 40 45

Arg Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe 50 55 60

Pro Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly 65 70 75 80

Gln Gly Arg Gly Pro Ile Leu Pro Gly Thr Lys Ala Trp Met Glu Thr 85 90 95

Glu Asp Thr Leu Gly Arg Val Leu Ser Pro Glu Pro Asp His Asp Ser 100 105 110

Leu Tyr His Pro Pro Pro Glu Glu Asp Gln Gly Glu Glu Arg Pro Arg 115 120 125

Leu Trp Val Met Pro Asn His Gln Val Leu Leu Gly Pro Glu Glu Asp 130 135 140

Gln Asp His Ile Tyr His Pro Gln 145 150

<210> 2169

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2169

Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp 1 5 10 15

Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val 20 25 30

Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg 35 40 45

Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe Pro 50 55 60

Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Thr
65 70 75 80

Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val Leu Ser Pro 85 90 95

Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro Glu Glu Asp Gln

100 105 110

Gly Glu Glu Arg Pro Arg Leu Trp Val Met Pro Asn His Gln Val Leu 115 120 125

Leu Gly Pro Glu Glu Asp Gln Asp His Ile Tyr His Pro Gln 130 135 140

<210> 2170

<211> 453

<212> PRT

<213> Homo sapiens

<400> 2170

Met Lys Leu Leu Val Ile Leu Ile Phe Ser Gly Leu Ile Thr Cys Cys
1 10 15

Gly Gly Asn Ser Ser His Ser Leu Pro Ser Lys Leu Leu Leu Val Ser 20 25 30

Phe Asp Gly Phe Arg Ala Asp Tyr Leu Gln Asn Tyr Glu Phe Pro His 35 40 45

Leu Gln Asn Phe Ile Lys Glu Gly Val Leu Val Glu His Val Lys Asn 50 60

Val Phe Ile Thr Lys Thr Phe Pro Asn His Tyr Ser Ile Val Thr Gly 65 70 75 80

Leu Tyr Glu Glu Ser His Gly Ile Val Ala Asn Ser Met Tyr Asp Val 85 90 95

Ile Thr Lys Lys His Phe Ser Asp Phe Asp Asp Lys Asp Pro Phe Trp 100 105 110

Trp Asn Glu Ala Val Pro Ile Trp Val Thr Asn Gln Leu Gln Glu Asn 115 120 125

Arg Ser Ser Ala Ala Ala Met Trp Pro Gly Thr Asp Val Pro Ile His 130 135

Asn Thr Thr Pro Ser Tyr Phe Met Asn Tyr Ser Ser Ser Val Ser Phe 145 150 155 160

Glu Glu Arg Leu Asn Asn Ile Thr Met Trp Leu Met Asn Ser Asn Pro 165 170 175

Pro Val Thr Phe Ala Thr Leu Tyr Trp Glu Glu Pro Asp Ala Ser Gly
180 180

His Lys Tyr Gly Pro Glu Asp Lys Glu Asn Met Tyr Arg Val Leu Lys 195 200 205

Glu Val Asp Asp Leu Ile Gly Glu Leu Val His Lys Leu Lys Val Leu 210 215 220

Gly Len Trp Glu Asn Leu Asn Val Ile Ile Thr Ser Asp His Gly Met 225 230 235 240

Thr Gln Cys Ser Lys Asp Lys Leu Ile Asn Leu Asp Leu Cys Ile Asp 245 250 255

- Arg Ser Ser Tyr Thr Leu Val Asp Leu Thr Pro Val Ala Ala Val Leu 260 265 270
- Pro Lys Ile Asn Thr Thr Glu Val Tyr Asn Lys Leu Lys Val Cys Asn 275 280 285
- Pro His Met Asn Val Tyr Leu Lys Glu Asp Ile Pro Ala Arg Phe His 290 295 300
- Tyr Gln His Asn Asp Arg Ile Gln Pro Ile Ile Leu Val Ala Asp Glu 305 310 315 320
- Gly Trp Thr Ile Val Leu Asn Lys Ser Leu Pro Lys Leu Gly Asp His 325 330 335
- Gly Tyr Asp Asn Ser Leu Ser Ser Met His Pro Phe Leu Ala Ala His 340 345 350
- Gly Pro Ala Phe His Lys Gly Tyr Lys His Ser Thr Ile Asn Ser Val 355 360 365
- Asp Ile Tyr Pro Met Met Cys His Ile Leu Gly Leu Lys Pro His Pro 370 380
- Asn Asn Gly Thr Phe Gly His Thr Lys Cys Leu Leu Val Asp Gln Trp 385 390 395 400
- Cys Ile Asn Leu Pro Glu Ala Ile Gly Ile Val Ile Gly Ala Leu Leu 405 410 415
- Val Leu Thr Thr Leu Thr Cys Leu Ile Ile Ile Met Gln Asn Arg Leu 420 425 430
- Ser Val Pro Arg Pro Phe Ser Arg Leu Gln Leu Gln Glu Asp Asp Asp 435 440 445

Asp Pro Leu Ile Glu 450

<210> 2171

<211> 287

<212> PRT

<213> Homo sapiens

<400> 2171

- Met Gly Ala Leu Arg Pro Thr Leu Leu Pro Pro Ser Leu Pro Leu Leu

 1 5 10 15
- Leu Leu Leu Met Leu Gly Met Gly Cys Trp Ala Arg Glu Val Leu Val 20 25 30
- Pro Glu Gly Pro Leu Tyr Arg Val Ala Gly Thr Ala Val Ser Ile Ser 35 40 45

Cys Asn Val Thr Gly Tyr Glu Gly Pro Ala Gln Gln Asn Phe Glu Trp 50 60

Phe Leu Tyr Arg Pro Glu Ala Pro Asp Thr Ala Leu Gly Ile Val Ser 65 70 75 80

Thr Lys Asp Thr Gln Phe Ser Tyr Ala Val Phe Lys Ser Arg Val Val 85 90 95

Ala Gly Glu Val Gln Val Gln Arg Leu Gln Gly Asp Ala Val Val Leu 100 105 110

Lys Ile Ala Arg Leu Gln Ala Gln Asp Ala Gly Ile Tyr Glu Cys His 115 120 125

Thr Pro Ser Thr Asp Thr Arg Tyr Leu Gly Ser Tyr Ser Gly Lys Val 130 135 140

Glu Leu Arg Val Leu Pro Asp Val Leu Gln Val Ser Ala Ala Pro Pro 145 150 155 160

Gly Pro Arg Gly Arg Gln Ala Pro Thr Ser Pro Pro Arg Met Thr Val 165 170 175

His Glu Gly Gln Glu Leu Ala Leu Gly Cys Leu Ala Arg Thr Ser Thr
180 185 190

Gln Lys His Thr His Leu Ala Val Ser Phe Gly Arg Ser Val Pro Glu 195 200 205

Ala Pro Val Gly Arg Ser Thr Leu Gln Glu Val Val Gly Ile Arg Ser 210 215 220

Asp Leu Ala Val Glu Ala Gly Ala Pro Tyr Ala Glu Arg Leu Ala Ala 225 230 235 240

Gly Glu Leu Arg Leu Gly Lys Glu Gly Thr Asp Arg Tyr Arg Met Val \$245\$ \$250\$

Val Gly Gly Ala Gln Ala Gly Asp Ala Gly Thr Tyr His Cys Thr Ala 260 265 270

Ala Glu Trp Ile Gln Asp Pro Asp Gly Ser Trp Ala Gln Ile Ala 275 280 285

<210> 2172

<211> 613

<212> PRT

<213> Homo sapiens

<400> 2172

Met Gly Ala Leu Arg Pro Thr Leu Leu Pro Pro Ser Leu Pro Leu Leu 1 5 10 15

Leu Leu Met Leu Gly Met Gly Cys Trp Ala Arg Glu Val Leu Val
20 25 30

Pro Glu Gly Pro Leu Tyr Ary Val Ala Gly Thr Ala Val Ser Ile Ser

_	_	
7	5	40 45
J	,	= 0 4.

Cys Asn Val Thr Gly Tyr Glu Gly Pro Ala Gln Gln Asn Phe Glu Trp 50 55 60

Phe Leu Tyr Arg Pro Glu Ala Pro Asp Thr Ala Leu Gly Ile Val Ser 65 70 75 80

Thr Lys Asp Thr Gln Phe Ser Tyr Ala Val Phe Lys Ser Arg Val Val 85 90 95

Ala Gly Glu Val Gl
n Val Gln Arg Leu Gln Gly Asp Ala Val Val Leu 100 105 110

Lys Ile Ala Arg Leu Gln Ala Gln Asp Ala Gly Ile Tyr Glu Cys His 115 120 125

Thr Pro Ser Thr Asp Thr Arg Tyr Leu Gly Ser Tyr Ser Gly Lys Val 130 135 140

Glu Leu Arg Val Leu Pro Asp Val Leu Gln Val Ser Ala Ala Pro Pro 145 150 155 160

Gly Pro Arg Gly Arg Gln Ala Pro Thr Ser Pro Pro Arg Met Thr Val 165 170 175

His Glu Gly Gln Glu Leu Ala Leu Gly Cys Leu Ala Arg Thr Ser Thr $180 \\ \hspace{1.5cm} 185 \\ \hspace{1.5cm} 190 \\ \hspace{1.5cm}$

Gln Lys His Thr His Leu Ala Val Ser Phe Gly Arg Ser Val Pro Glu 195 200 205

Ala Pro Val Gly Arg Ser Thr Leu Gln Glu Val Val Gly Ile Arg Ser 210 215 220

Asp Leu Ala Val Glu Ala Gly Ala Pro Tyr Ala Glu Arg Leu Ala Ala 225 230 235 240

Gly Glu Leu Arg Leu Gly Lys Glu Gly Thr Asp Arg Tyr Arg Met Val 245 250 255

Val Gly Gly Ala Gln Ala Gly Asp Ala Gly Thr Tyr His Cys Thr Ala 260 265 270

Ala Glu Trp Ile Gln Asp Pro Asp Gly Ser Trp Ala Gln Ile Ala Glu 275 280 285

Lys Arg Ala Val Leu Ala His Val Asp Val Gln Thr Leu Ser Ser Gln 290 295 300

Leu Ala Val Thr Val Gly Pro Gly Glu Arg Arg Ile Gly Pro Gly Glu 305 310 315 320

Pro Leu Glu Leu Cys Asn Val Ser Gly Ala Leu Pro Pro Ala Gly 325 330 335

Arg His Ala Ala Tyr Ser Val Gly Trp Glu Met Ala Pro Ala Gly Ala 340 345 350

Pro Gly Pro Gly Arg Leu Val Ala Gln Leu Asp Thr Glu Gly Val Gly

355 360 365

Ser Leu Gly Pro Gly Tyr Glu Gly Arg His Ile Ala Met Glu Lys Val 370 375 380

Ala Ser Arg Thr Tyr Arg Leu Arg Leu Glu Ala Ala Arg Pro Gly Asp 385 390 395 400

Ala Gly Thr Tyr Arg Cys Leu Ala Lys Ala Tyr Val Arg Gly Ser Gly 405 410 415

Thr Arg Leu Arg Glu Ala Ala Ser Ala Arg Ser Arg Pro Leu Pro Val 420 425 430

His Val Arg Glu Glu Gly Val Val Leu Glu Ala Val Ala Trp Leu Ala 435 440 445

Gly Gly Thr Val Tyr Arg Gly Glu Thr Ala Ser Leu Leu Cys Asn Ile $450 \,$ 455 $\,$ 460

Ser Val Arg Gly Gly Pro Pro Gly Leu Arg Leu Ala Ala Ser Trp Trp 465 470 475 480

Val Glu Arg Pro Glu Asp Gly Glu Leu Ser Ser Val Pro Ala Gln Leu 485 490 490

Val Gly Gly Val Gly Gln Asp Gly Val Ala Glu Leu Gly Val Arg Pro 500 505 510

Gly Gly Pro Val Ser Val Glu Leu Val Gly Pro Arg Ser His Arg 515 520 525

Leu Arg Leu His Ser Leu Gly Pro Glu Asp Glu Gly Val Tyr His Cys 530 540

Ala Pro Ser Ala Trp Val Gln His Ala Asp Tyr Ser Trp Tyr Gln Ala 545 550 560

Gly Ser Ala Arg Ser Gly Pro Val Thr Val Tyr Pro Tyr Met His Ala 565 570 575

Leu Asp Thr Leu Phe Val Pro Leu Leu Val Gly Thr Gly Val Ala Leu 580 590

Val Thr Gly Ala Thr Val Leu Gly Thr Ile Thr Cys Cys Phe Met Lys 595 600 605

Arg Leu Arg Lys Arg 610

<210> 2173

<211> 122

<212> PRT

<213> Homo sapiens

<400> 2173

Met Trp Gly Trp Gly Ser Leu Val Ser Ala Arg Gly Gly Trp Gly Val

Phe Ile Tyr Leu Tyr Met Gly Leu Tyr Ile Val Leu Trp Gly Met Gly 20 25 30

- Glu Pro Ala Gly Gly Glu Asn Pro Pro Leu Ser Pro His Pro Pro Gly 35 40 45
- Arg Ala Asn Val Lys Leu Leu Ile Phe Val Leu Tyr Ile Phe Tyr Ile 50 60
- Asn Ile Ser Ile Phe Phe Leu Gln Asn Gln Phe Ile Asn Gly Arg Gly 65 70 75 80
- Val Trp Gly Gly His Met Glu Leu Pro Leu Trp Gly Gly Pro Leu His
 85 90 95
- Tyr Pro Thr Tyr Arg Pro Phe Pro His Pro Pro Pro His Ser Pro Pro 100 105 110
- Pro Gly Cys Asp Cys Cys Lys Met Gly Val 115 120

<210> 2174

<211> 613

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (507)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2174

Met Gly Ala Leu Arg Pro Thr Leu Leu Pro Pro Ser Leu Pro Leu Leu 1 5 10 15

Leu Leu Met Leu Gly Met Gly Cys Trp Ala Arg Glu Val Leu Val
20 25 30

Pro Glu Gly Pro Leu Tyr Arg Val Ala Gly Thr Ala Val Ser Ile Ser 35 40 45

Cys Asn Val Thr Gly Tyr Glu Gly Pro Ala Gln Gln Asn Phe Glu Trp 50 55 60

Phe Leu Tyr Arg Pro Glu Ala Pro Asp Thr Ala Leu Gly Ile Val Ser 65 70 75 80

Thr Lys Asp Thr Gln Phe Ser Tyr Ala Val Phe Lys Ser Arg Val Val
85 90 95

Ala Gly Glu Val Gln Val Gln Arg Leu Gln Gly Asp Ala Val Val Leu 100 105 110

Lys Ile Ala Arg Leu Gln Ala Gln Asp Ala Gly Ile Tyr Glu Cys His 115 120 125

Thr Pro Ser Thr Asp Thr Arg Tyr Leu Gly Ser Tyr Ser Gly Lys Val

	130					135					140				
Glu 145	Leu	Arg	Val	Leu	Pro 150	Asp	Val	Leu	Gln	Val 155	Ser	Ala	Ala	Pro	Pro
Gly	Pro	Arg	Gly	Arg 165	Gln	Ala	Pro	Thr	Ser 170	Pro	Pro	Arg	Met	Thr 175	Val
His	Glu	Gly	Gln 180	Glu	Leu	Ala	Leu	Gly 185	Cys	Leu	Ala	Arg	Thr 190	Ser	Thr
Gln	Lys	His 195	Thr	His	Leu	Ala	Val 200	Ser	Phe	Gly	Arg	Ser 205	Val	Pro	Glu
Ala	Pro 210	Val	Gly	Arg	Ser	Thr 215	Leu	Gln	Glu	Val	Val 220	Gly	Ile	Arg	Ser
Asp 225	Leu	Ala	Val	Glu	Ala 230	Gly	Ala	Pro	Tyr	Ala 235	Glu	Arg	Leu	Ala	Ala 240
Gly	Glu	Leu	Arg	Leu 245	Gly	Lys	Glu	Gly	Thr 250	Asp	Arg	Tyr.	Arg	Met 255	Val
Val	Gly	Gly	Ala 260	Gln	Ala	Gly	Asp	Ala 265	Gly	Thr	Tyr	His	Cys 270	Thr	Ala
Ala	Glu	Trp 275	Ile	Gln	Asp	Pro	Asp 280	Gly	Ser	Trp	Ala	Gln 285	Ile	Ala	Glu
Lys	Arg 290	Ala	Val	Leu	Ala	His 295	Val	Asp	Val	Gln	Thr 300	Leu	Ser	Ser	Glr
Leu 305	Ala	Val	Thr	Val	Gly 310	Pro	Gly	Glu	Arg	Arg 315	Ile	Gly	Pro	Gly	Glu 320
Pro	Leu	Glu	Leu	Leu 325	Суз	Asn	Val	Ser	Gly 330	Ala	Leu	Pro	Pro	Ala 335	Gly
Arg	His	Ala	Ala 340	Tyr	Ser	Val	Gly	Trp 345	Glu	Met	Ala	Pro	Ala 350	Gly	Ala
Pro	Gly	Pro 355	Gly	Arg	Leu	Val	Ala 360	Gln	Leu	Asp	Thr	Glu 365	Gly	Val	Gly
Ser	Leu 370	Gly	Pro	Gly	туг	Glu 375	Gly	Arg	His	Ile	Ala 380	Met	Glu	Lys	Va]
Ala 385	Ser	Arg	Thr	Tyr	Arg 390	Leu	Arg	Leu	Glu	Ala 395	Ala	Arg	Pro	Gly	Asg 400
Ala	Gly	Thr	Tyr	Arg 405	Суѕ	Leu	Ala	Lys	Ala 410	Tyr	Val	Arg	Gly	Ser 415	Gl
			420					425					Leu 430		
His	Val	Arg 435	Glu	Glu	Gly	Val	Val 440	Leu	Glu	Ala	Val	Ala 445	Trp	Leu	Ala
Gly	317	Thr	Val	Tyr	Arg	Gly	Glu	Thr	Ala	Ser	Leu	Leu	Cys	Asn	Ile

1432

450 455 460

Ser Val Arg Gly Gly Pro Pro Gly Leu Arg Leu Ala Ala Ser Trp Trp 465 470 475 480

Val Glu Arg Pro Glu Asp Gly Glu Leu Ser Ser Val Pro Ala Gln Leu
485 490 495

Val Gly Gly Val Gly Gln Asp Gly Val Ala Xaa Leu Gly Val Arg Pro 500 505 510

Gly Gly Pro Val Ser Val Glu Leu Val Gly Pro Arg Ser His Arg 515 520 525

Leu Arg Leu His Ser Leu Gly Pro Glu Asp Glu Gly Val Tyr His Cys 530 535 540

Ala Pro Ser Ala Trp Val Gln His Ala Asp Tyr Ser Trp Tyr Gln Ala 545 550 555 560

Gly Ser Ala Arg Ser Gly Pro Val Thr Val Tyr Pro Tyr Met His Ala 565 570 575

Leu Asp Thr Leu Phe Val Pro Leu Leu Val Gly Thr Gly Val Ala Leu 580 585 590

Val Thr Gly Ala Thr Val Leu Gly Thr Ile Thr Cys Cys Phe Met Lys 595 600 605

Arg Leu Arg Lys Arg 610

<210> 2175

<211> 60

<212> PRT

<213> Homo sapiens

<400> 2175

Met Ala Trp Ala Val Thr Leu Ile Leu Ser Leu Ser Arg Ala Val Arg
1 5 10 15

Thr Gln Glu Val Pro Met Ala Leu Gln Ala His Ser Gly Ile Gln Leu 20 25 30

Ala Ser Arg Val Gly Leu Pro Gly Pro Trp Pro Glu Cys Ser Thr Leu 35 40 45

Ser Ser Arg Cys His Leu Ser Met Asp Ser Lys Val 50 55 60

<210> 2176

<211> 396

<212> PRT

<213> Homo sapiens

<400> 2176

Met Trp Trp Leu Leu Trp Gly Val Leu Gln Ala Cys Pro Thr Arg Gly Ser Val Leu Leu Ala Gln Glu Leu Pro Gln Gln Leu Thr Ser Pro Gly Tyr Pro Glu Pro Tyr Gly Lys Gly Gln Glu Ser Ser Thr Asp Ile Lys Ala Pro Glu Gly Phe Ala Val Arg Leu Val Phe Gln Asp Phe Asp Leu Glu Pro Ser Gln Asp Cys Ala Gly Asp Ser Val Thr Ile Ser Phe Val Gly Ser Asp Pro Ser Gln Phe Cys Gly Gln Gln Gly Ser Pro Leu 90 Gly Arg Pro Pro Gly Gln Arg Glu Phe Val Ser Ser Gly Arg Ser Leu Arg Leu Thr Phe Arg Thr Gln Pro Ser Ser Glu Asn Lys Thr Ala His 120 125 Leu His Lys Gly Phe Leu Ala Leu Tyr Gln Thr Val Ala Val Asn Tyr Ser Gln Pro Ile Ser Glu Ala Ser Arg Gly Ser Glu Ala Ile Asn Ala 150 Pro Gly Asp Asn Pro Ala Lys Val Gln Asn His Cys Gln Glu Pro Tyr 165 Tyr Gln Ala Ala Ala Gly Ala Leu Thr Cys Ala Thr Pro Gly Thr 185 Trp Lys Asp Arg Gln Asp Gly Glu Glu Val Leu Gln Cys Met Pro Val 200 Cys Gly Arg Pro Val Thr Pro Ile Ala Gln Asn Gln Thr Thr Leu Gly 215 Ser Ser Arg Ala Lys Leu Gly Asn Phe Pro Trp Gln Ala Phe Thr Ser 225 Ile His Gly Arg Gly Gly Gly Ala Leu Leu Gly Asp Arg Trp Ile Leu 250 Thr Ala Ala His Thr Ile Tyr Pro Lys Asp Ser Val Ser Leu Arg Lys 265 Asn Gln Ser Val Asn Val Phe Leu Gly His Thr Ala Ile Asp Glu Met Leu Lys Leu Gly Asn His Pro Val His Arg Val Val His Pro Asp 295 Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile Ala Leu Leu 315 310

Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu Pro Val Cys 325 330 335

Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu Gly Tyr Val 340 345 350

Ser Gly Phe Gly Met Glu Met Gly Trp Leu Thr Thr Glu Leu Lys Tyr 355 360 365

Ser Arg Leu Pro Val Ala Pro Arg Glu Ala Cys Asn Ala Trp Leu Gln 370 375 380

Lys Arg Gln Arg Pro Glu Lys Lys Lys Lys Lys S85 390 395

<210> 2177

<211> 172

<212> PRT

<213> Homo sapiens

<400> 2177

Gly Thr Arg Thr Glu Arg Asp Glu Leu Leu Lys Asp Leu Gln Gln Ser 1 5 10

Ile Ala Arg Glu Pro Ser Ala Pro Ser Ile Pro Thr Pro Ala Tyr Gln $20 \hspace{1cm} 25 \hspace{1cm} 30$

Ser Leu Pro Ala Gly Gly His Ala Pro Thr Pro Pro Thr Pro Ala Pro 35 40 45

Arg Thr Met Pro Pro Thr Lys Pro Gln Pro Pro Ala Arg Pro Pro Pro 50 55 60

Pro Val Leu Pro Ala Asn Arg Ala Pro Ser Ala Thr Ala Pro Ser Pro 65 70 75 80

Val Gly Ala Gly Thr Ala Ala Pro Ala Pro Ser Gln Thr Pro Gly Ser 85 90 95

Ala Pro Pro Pro Gln Ala Gln Gly Pro Pro Tyr Pro Thr Tyr Pro Gly 100 105 110

Tyr Pro Gly Tyr Cys Gln Met Pro Met Pro Met Gly Tyr Asn Pro Tyr 115 120 125

Ala Tyr Gly Gln Tyr Asn Met Pro Tyr Pro Pro Val Tyr His Gln Ser 130 140

Pro Gly Gln Ala Pro Tyr Pro Gly Pro Gln Gln Pro Ser Tyr Pro Phe 145 150 155 160

Pro Gln Pro Pro Gln Gln Ser Tyr Tyr Pro Gln Gln 165 170

<210> 2178 <211> 142

<212> PRT

<213> Homo sapiens

<0220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2173

Met His Gln Leu Leu Gln Leu Gln Arg Gln Glu Pro Cys Arg Leu Leu 1 5 10 15

Ser Pro Ser Pro Gln Pro Gly Leu His His Leu Cys Phe Gln Gln Ile 20 25 30

Glu Leu Leu Leu Leu Leu His Leu Gln Trp Gly Leu Gly Leu Leu 45

Arg Gln Leu His His Lys Arg Leu Ala Gln Leu Leu Leu His Arg Arg 50 55 60

Arg Asp His Pro Ile Pro Pro Ile Gln Asp Ile Leu Gly Ile Ala Lys 65 70 75 80

Cys Pro Cys Pro Trp Ala Ile Ile Leu Met Arg Met Ala Ser Ile Ile 85 90 95

Cys His Ile His Gln Cys Ile Thr Arg Val Leu Asp Arg Leu Xaa Thr 100 105 110

Arg Asp Pro Ser Ser Leu His Thr Pro Ser Leu Ser Pro His Ser Ser 115 120 125

Leu Thr Ile His Ser Ser Asn Met Ser Ala Gln Gln Leu Ser 130 135 140

<210> 2179

<211> 868

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (194)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (309)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (550)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2179

Met Ala Thr Phe Ile Ser Val Gln Leu Lys Lys Thr Ser Glu Val Asp

1				5					10					15	
Leu	Ala	Lys	Pro 20	Leu	Val	Lys	Phe	Ile 25	Gln	Gln	Thr	Tyr	Pro 30	Ser	Gly
Gly	Glu	Glu 35	Gln	Ala	Gln	Туr	Cys 40	Arg	Ala	Ala	Glu	Glu 45	Leu	Ser	Lys
Leu	Arg 50	Arg	Ala	Ala	Val	Gly 55	Arg	Pro	Leu	Asp	Lys	His	Glu	Gly	Ala
Leu 65	Glu	Thr	Leu	Leu	Arg 70	Tyr	Tyr	Asp	Gln	Ile 75	Cys	Ser	Ile	Glu	Pro 80
Lys	Phe	Pro	Phe	Ser 85	Glu	Asn	Gln	Ile	Cys 90	Leu	Thr	Phe	Thr	Trp 95	Lys
Asp	Ala	Phe	Asp 100	Lys	Gly	Ser	Leu	Phe 105	Gly	Gly	Ser	Val	Lys 110	Leu	Ala
Leu	Ala	Ser 115	Leu	Gly	Tyr	Glu	Lys 120	Ser	Cys	Val	Leu	Phe 125	Asn	Cys	Ala
Ala	Leu 130	Ala	Ser	Gln	Ile	Ala 135	Ala	Glu	Gln	Asn	Leu 140	Asp	Asn	Asp	Glu
Gly 145	Leu	Lys	Ile	Ala	Ala 150	Lys	His	Tyr	Gln	Phe 155	Ala	Ser	Gly	Ala	Phe
Leu	His	Ile	Lys	Glu 165	Thr	Val	Leu	Ser	Ala 170	Leu	Ser	Arg	Glu	Pro 175	Thr
Val	Asp	Ile	Ser 180	Pro	Asp	Thr	Val	Gly 185	Thr	Leu	Ser	Leu	Ile 190	Met	Leu
Ala	Xaa	Ala 195	Gln	Glu	Val	Phe	Phe 200	Leu	Lys	Ala	Thr	Arg 205		Lys	Met
Lys	Asp 210	Ala	Ile	Ile	Ala	Lys 215	Leu	Ala	Asn	Gln	Ala 220	Ala	Asp	Туг	Phe
Gly 225		Ala	Phe	Lys	Gln 230	Cys	Gln	Туг	Lys	Asp 235		Leu	Pro	Lys	Gl1 240
Val	Phe	Pro	Val	Leu 245	Ala	Ala	Lys	His	Cys 250		Met	Gln	Ala	Asn 255	
Glu	Tyr	His	Gln 260		Ile	Leu	Ala	Lys 265		Gln	Lys	Lys	Phe 270		Gli
Glu	Ile	Ala 275		Leu	Gln	His	Ala 280		Glu	Leu	Ile	Lys 285		Val	Ala
Ser	Arg 290		Asp	Glu	Tyr	Val 295		Val	Lys	Asp	Phe		Asp	Lys	Il
Asn 305		Ala	Leu	. Xaa	Ala 310		Lys	Lys	Asp	Asn 315		Phe	e Ile	Tyr	Нi 32

Asp Arg Val Pro Asp Leu Lys Asp Leu Asp Pro Ile Gly Lys Ala Thr

320

325 330 335 Leu Val Lys Ser Thr Pro Val Asn Val Pro Ile Ser Gln Lys Phe Thr 345 Asp Leu Phe Glu Lys Met Val Pro Val Ser Val Gln Gln Ser Leu Ala 360 Ala Tyr Asn Gln Arg Lys Ala Asp Leu Val Asn Arg Ser Ile Ala Gln 375 380 Met Arg Glu Ala Thr Thr Leu Ala Asn Gly Val Leu Ala Ser Leu Asn 390 395 Leu Pro Ala Ala Ile Glu Asp Val Ser Gly Asp Thr Val Pro Gln Ser 405 410 Ile Leu Thr Lys Ser Arg Ser Val Ile Glu Gln Gly Gly Ile Gln Thr 420 Val Asp Gln Leu Ile Lys Glu Leu Pro Glu Leu Leu Gln Arg Asn Arg 440 Glu Ile Leu Asp Glu Ser Leu Arg Leu Leu Asp Glu Glu Glu Ala Thr 455 Asp Asn Asp Leu Arg Ala Lys Phe Lys Glu Arg Trp Gln Arg Thr Pro 470 475 Ser Asn Glu Leu Tyr Lys Pro Leu Arg Ala Glu Gly Thr Asn Phe Arg Thr Val Leu Asp Lys Ala Val Gln Ala Asp Gly Gln Val Lys Glu Cys Tyr Gln Ser His Arg Asp Thr Ile Val Leu Leu Cys Lys Pro Glu Pro 520 Glu Leu Asn Ala Ala Ile Pro Ser Ala Asn Pro Ala Lys Thr Met Gln 535 Gly Ser Glu Val Val Xaa Val Leu Lys Ser Leu Leu Ser Asn Leu Asp Asn Phe Asp Met Thr Ser Lys Phe Leu Thr Ala Leu Ala Gln Asp Gly 585

Glu Val Lys Lys Glu Arg Glu Gly Leu Glu Asn Asp Leu Lys Ser Val

Val Ile Asn Glu Glu Ala Leu Ser Val Thr Glu Leu Asp Arg Val Tyr 600 595

Gly Gly Leu Thr Thr Lys Val Gln Glu Ser Leu Lys Lys Gln Glu Gly 615 620

Leu Leu Lys Asn Ile Gln Val Ser His Gln Glu Phe Ser Lys Met Lys 630

Gln Ser Asn Asn Glu Ala Asn Leu Arg Glu Glu Val Leu Lys Asn Leu

645 650 655

Ala Thr Ala Tyr Asp Asn Phe Val Glu Leu Val Ala Asn Leu Lys Glu 660 665 670

Gly Thr Lys Phe Tyr Asn Glu Leu Thr Glu Ile Leu Val Arg Phe Gln 675 680 685

Asn Lys Cys Ser Asp Ile Val Phe Ala Arg Lys Thr Glu Arg Asp Glu 690 695 700

Leu Leu Lys Asp Leu Gln Gln Ser Ile Ala Arg Glu Pro Ser Ala Pro 705 710 715 720

Ser Ile Pro Thr Pro Ala Tyr Gln Ser Leu Pro Ala Gly Gly His Ala 725 730 735

Pro Thr Pro Pro Thr Pro Ala Pro Arg Thr Met Pro Pro Thr Lys Pro 740 745 750

Gln Pro Pro Ala Arg Pro Pro Pro Val Leu Pro Ala Asn Arg Ala 755 760 765

Pro Ser Ala Thr Ala Pro Ser Pro Val Gly Ala Gly Thr Ala Ala Pro 770 780

Ala Pro Ser Gln Thr Pro Gly Ser Ala Pro Pro Pro Gln Ala Gln Gly 785 790 795 800

Pro Pro Tyr Pro Thr Tyr Pro Gly Tyr Pro Gly Tyr Cys Gln Met Pro 805 810 815

Met Pro Met Gly Tyr Asn Pro Tyr Ala Tyr Gly Gln Tyr Asn Met Pro 820 825 830

Tyr Pro Pro Val Tyr His Gln Ser Pro Gly Gln Ala Pro Tyr Pro Gly 835 840 845

Pro Gln Gln Pro Ser Tyr Pro Phe Pro Gln Pro Pro Gln Gln Ser Tyr 850 855 860

Tyr Pro Gln Gln 865

<210> 2180

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2180

Met Lys Pro Ala Thr Ala Ser Ala Leu Leu Leu Leu Leu Leu Gly Leu
1 5 10 15

Ala Trp Thr Gln Gly Ser His Gly Trp Gly Ala Asp Ala Ser Ser Leu 20 25 30

Gln Lys Arg Ala Gly Arg Ala Asp Gln Pro Gly Ala Gly Trp Gln Glu
35 40 45

Val Ala Ala Val Thr Ser Lys Asn Tyr Asn Tyr Asn Gln His Ala Tyr 50 60

Pro Thr Ala Tyr Gly Gly Lys Tyr Ser Val Lys Thr Pro Ala Lys Gly 65 70 75 89

Gly Val Ser Pro Ser Ser Ser Ala Ser Arg Val Gln Pro Gly Leu Leu 85 90 95

Gln Trp Val Lys Phe Trp 100

<210> 2181

<211> 140

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2181

Met Phe Leu Phe Gly Gly Phe Leu Met Thr Leu Phe Gly Leu Phe Val 1 5 10 15

Ser Leu Val Phe Leu Gly Gln Ala Phe Thr Ile Met Leu Val Tyr Val 20 25 30

Trp Ser Arg Xaa Asn Pro Tyr Val Arg Met Asn Phe Phe Gly Leu Leu 35 40 45

Asn Phe Gln Ala Pro Phe Leu Pro Trp Val Leu Met Gly Phe Ser Leu 50 55 60

Leu Leu Gly Asn Ser Ile Ile Val Asp Leu Leu Gly Ile Ala Val Gly 65 70 75 80

His Ile Tyr Phe Phe Leu Glu Asp Val Phe Pro Asn Gln Pro Gly Gly 85 90 95

Ile Arg Ile Leu Lys Thr Pro Ser Ile Leu Lys Ala Ile Phe Asp Thr 100 105 110

Pro Asp Glu Asp Pro Asn Tyr Asn Pro Leu Pro Glu Glu Arg Pro Gly 115 120 125

Gly Phe Ala Trp Gly Glu Gly Gln Arg Leu Gly Gly
130 135 140

<210> 2182

<211> 156

<312> PRT

<213> Homo sapiens

<400> 2182

Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp Phe Val Phe 1 5 10 15

Met Phe Leu Phe Gly Gly Phe Leu Met Thr Leu Phe Gly Leu Phe Val 20 25 30

Ser Leu Val Phe Leu Gly Gln Ala Phe Thr Ile Met Leu Val Tyr Val 35 40 45

Trp Ser Arg Arg Asn Pro Tyr Val Arg Met Asn Phe Phe Gly Leu Leu 50 55 60

Asn Phe Gln Ala Pro Phe Leu Pro Trp Val Leu Met Gly Phe Ser Leu 65 70 75 80

Leu Leu Gly Asn Ser Ile Ile Val Asp Leu Leu Gly Ile Ala Val Gly 85 90 95

His Ile Tyr Phe Phe Leu Glu Asp Val Phe Pro Asn Gln Pro Gly Gly 100 105 110

Ile Arg Ile Leu Lys Thr Pro Ser Ile Leu Lys Ala Ile Phe Asp Thr 115 120 125

Pro Asp Glu Asp Pro Asn Tyr Asn Pro Leu Pro Glu Glu Arg Pro Gly 130 135 140

Gly Phe Ala Trp Gly Glu Gly Gln Arg Leu Gly Gly 145 150 155

<210> 2183

<211> 239

<212> PRT

<213> Homo sapiens

<400> 2183

Met Ala Tyr Gln Ser Leu Arg Leu Glu Tyr Leu Gln Ile Pro Pro Val

1 5 10 15

Ser Arg Ala Tyr Thr Thr Ala Cys Val Leu Thr Thr Ala Ala Val Gln 20 25 30

Leu Glu Leu Ile Thr Pro Phe Gln Leu Tyr Phe Asn Pro Glu Leu Ile 35 40 45

Phe Lys His Phe Gln Ile Trp Arg Leu Ile Thr Asn Phe Leu Phe Phe 50 55 60

Gly Pro Val Gly Phe Asn Phe Leu Phe Asn Met Ile Phe Leu Tyr Arg
65 70 75 80

Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp 85 90 95

Phe Val Phe Met Phe Leu Phe Gly Gly Phe Leu Met Thr Leu Phe Gly 100 105 110

Leu Phe Val Ser Leu Val Phe Leu Gly Gln Ala Phe Thr Ile Met Leu 115 120 125

Val Tyr Val Trp Ser Arg Arg Asn Pro Tyr Val Arg Met Asn Phe Phe 130 135 140

Gly Leu Leu Asn Phe Gln Ala Pro Phe Leu Pro Trp Val Leu Met Gly
145 150 155 160

Fhe Ser Leu Leu Gly Asn Ser Ile Ile Val Asp Leu Leu Gly Ile 165 170 175

Ala Val Gly His Ile Tyr Phe Phe Leu Glu Asp Val Phe Pro Asn Gln 180 185 190

Pro Gly Gly Ile Arg Ile Leu Lys Thr Pro Ser Ile Leu Lys Ala Ile 195 200 205

Phe Asp Thr Pro Asp Glu Asp Pro Asn Tyr Asn Pro Leu Pro Glu Glu 210 215 220

Arg Pro Gly Gly Phe Ala Trp Gly Glu Gly Gln Arg Leu Gly Gly 225 230 235

<210> 2184

<211> 132

<212> PRT

<213> Homo sapiens

<400> 2184

Met Thr Leu Phe Gly Leu Phe Val Ser Leu Val Phe Leu Gly Gln Ala 1 5 10 15

Phe Thr Ile Met Leu Val Tyr Val Trp Ser Arg Arg Asn Pro Tyr Val 20 25 30

Arg Met Asn Phe Phe Gly Leu Leu Asn Phe Gln Ala Pro Phe Leu Pro 35 40 45

Trp Val Leu Met Gly Phe Ser Leu Leu Gly Asn Ser Ile Ile Val 50 55 60

Asp Leu Leu Gly Ile Ala Val Gly His Ile Tyr Phe Phe Leu Glu Asp 65 70 75 80

Val Phe Pro Asn Gln Pro Gly Gly Ile Arg Ile Leu Lys Thr Pro Ser 85 90 95

Ile Leu Lys Ala Ile Phe Asp Thr Pro Asp Glu Asp Pro Asn Tyr Asn 100 105 110

Pro Leu Pro Glu Glu Arg Pro Gly Gly Phe Ala Trp Gly Glu Gly Gln
115 120 125

Arg Leu Gly Gly 130

<210> 2185

<211> 339

<212> PRT

<213> Homo sapiens

<400> 2185

Met Ser Trp Ser Thr Phe Leu Leu Ala Glu Ala Cys Gly Phe Thr Gly 1 5 10 15

Val Val Ala Val Leu Phe Cys Gly Ile Thr Gln Ala His Tyr Thr Tyr
20 25 30

Asn Asn Leu Ser Val Glu Ser Arg Ser Arg Thr Lys Gln Leu Phe Glu 35 40 45

Val Leu His Phe Leu Ala Glu Asn Phe Ile Phe Ser Tyr Met Gly Leu 50 55 60

Ala Leu Phe Thr Phe Gln Lys His Val Phe Ser Pro Ile Phe Ile Ile 65 70 75 80

Gly Ala Phe Val Ala Ile Phe Leu Gly Arg Ala Ala His Ile Tyr Pro 85 90 95

Leu Ser Phe Phe Leu Asn Leu Gly Arg Arg His Lys Ile Gly Trp Asn 100 105 110

Phe Gln His Met Met Met Phe Ser Gly Leu Arg Gly Ala Met Ala Phe 115 120 125

Ala Leu Ala Ile Arg Asp Thr Ala Ser Tyr Ala Arg Gln Met Met Phe 130 135 140

Thr Thr Leu Leu Ile Val Phe Phe Thr Val Trp Ile Ile Gly Gly 145 150 155 160

Gly Thr Thr Pro Met Leu Ser Trp Leu Asn Ile Arg Val Gly Val Asp 165 170 175

Pro Asp Gln Asp Pro Pro Pro Asn Asp Ser Phe Gln Val Leu Gln 180 185 190

Gly Asp Gly Pro Asp Ser Ala Arg Gly Asn Arg Thr Lys Gln Glu Ser 195 200 205

Ala Trp Ile Phe Arg Leu Trp Tyr Ser Phe Asp His Asn Tyr Leu Lys 210 215 220

Pro Ile Leu Thr His Ser Gly Pro Pro Leu Thr Thr Thr Leu Pro Ala 225 230 235 240

Trp Cys Gly Leu Leu Ala Arg Cys Leu Thr Ser Pro Gln Val Tyr Asp 245 250 255

Asn Gln Glu Pro Leu Arg Glu Glu Asp Ser Asp Phe Ile Leu Thr Glu 260 265 270

Gly Asp Leu Thr Leu Thr Tyr Gly Asp Ser Thr Val Thr Ala Asn Gly 275 280 285

Ser Ser Ser Ser His Thr Ala Ser Thr Ser Leu Glu Gly Ser Arg Arg 290 295 300

Thr Lys Ser Ser Ser Glu Glu Val Leu Glu Arg Asp Leu Gly Met Gly 305 310 315 320

Asp Gln Lys Val Ser Ser Arg Gly Thr Arg Leu Val Phe Pro Leu Glu 325 330 335

Asp Asn Ala

<210> 2186

<211> 339

<212> PRT

<213> Homo sapiens

<400> 2186

Met Ser Trp Ser Thr Phe Leu Leu Ala Glu Ala Cys Gly Phe Thr Gly
1 5 10 15

Val Val Ala Val Leu Phe Cys Gly Ile Thr Gln Ala His Tyr Thr Tyr 20 25 30

Asn Asn Leu Ser Val Glu Ser Arg Ser Arg Thr Lys Gln Leu Phe Glu 35 40 45

Val Leu His Phe Leu Ala Glu Asn Phe Ile Phe Ser Tyr Met Gly Leu 50 55 60

Ala Leu Phe Thr Phe Gln Lys His Val Phe Ser Pro Ile Phe Ile Ile 65 70 75 80

Gly Ala Phe Val Ala Ile Phe Leu Gly Arg Ala Ala His Ile Tyr Pro 85 90 95

Leu Ser Phe Phe Leu Asn Leu Gly Arg Arg His Lys Ile Gly Trp Asn 100 105 110

Phe Gln His Met Met Met Phe Ser Gly Leu Arg Gly Ala Met Ala Phe 115 120 125

Ala Leu Ala Ile Arg Asp Thr Ala Ser Tyr Ala Arg Gln Met Met Phe 130 135 140

Thr Thr Thr Leu Leu Ile Val Phe Phe Thr Val Trp Ile Ile Gly Gly 145 150 155 160

Gly Thr Thr Pro Met Leu Ser Trp Leu Asn Ile Arg Val Gly Val Asp 165 170 175

Pro Asp Gln Asp Pro Pro Pro Asn Asp Ser Phe Gln Val Leu Gln
180 185 190

Gly Asp Gly Pro Asp Ser Ala Arg Gly Asn Arg Thr Lys Gln Glu Ser 195 200 205

Ala Trp Ile Phe Arg Leu Trp Tyr Ser Phe Asp His Asn Tyr Leu Lys 215 Pro Ile Leu Thr His Ser Gly Pro Pro Leu Thr Thr Leu Pro Ala 225 230 235 Trp Cys Gly Leu Leu Ala Arg Cys Leu Thr Ser Pro Gln Val Tyr Asp 250 Asn Gln Glu Pro Leu Arg Glu Glu Asp Ser Asp Phe Ile Leu Thr Glu 265 Gly Asp Leu Thr Leu Thr Tyr Gly Asp Ser Thr Val Thr Ala Asn Gly 280 Ser Ser Ser Ser His Thr Ala Ser Thr Ser Leu Glu Gly Ser Arg Arg 295 Thr Lys Ser Ser Ser Glu Glu Val Leu Glu Arg Asp Leu Gly Met Gly 310 315 Asp Gln Lys Val Ser Ser Arg Gly Thr Arg Leu Val Phe Pro Leu Glu 325 330 Asp Asn Ala <210> 2187 <211> 509 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (20) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (168) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (198) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (199)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (244)

<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (303)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (493)
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<321> SITE
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<222> (499)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (505)
<223> Xaa equals any of the naturally occurring L-amino acids
Met Glu Glu Leu Ala Thr Glu Lys Glu Ala Glu Glu Ser His Arg Gln
Asp Ser Val Xaa Leu Leu Thr Phe Ile Leu Leu Thr Leu Thr Ile
                                 25
Leu Thr Ile Trp Leu Phe Lys His Arg Arg Val Arg Phe Leu His Glu
                             40
         3.5
Thr Gly Leu Ala Met Ile Tyr Gly Leu Ile Val Gly Val Ile Leu Arg
                          55
Tyr Gly Thr Pro Ala Thr Ser Gly Arg Asp Lys Ser Leu Ser Cys Thr
 65
Gln Glu Asp Arg Ala Phe Ser Thr Leu Leu Val Asn Val Ser Gly Lys
Phe Phe Glu Tyr Thr Leu Lys Gly Glu Ile Ser Pro Gly Lys Ile Asn
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105

100

Ser	Val	Glu 115	Gln	Asn	Asp	Met	Leu 120	Arg	Lys	Val	Thr	Phe 125	Asp	Pro	Glu
Val	Phe 130	Phe	Asn	Ile	Leu	Leu 135	Pro	Pro	Ile	Ile	Phe 140	His	Ala	Gly	Tyr
Ser 145	Leu	Lys	Lys	Arg	His 150	Phe	Phe	Arg	Asn	Leu 155	Gly	Ser	Ile	Leu	Ala 160
Tyr	Ala	Phe	Leu	Gly 165	Thr	Ala	Xaa	Ser	Cys 170	Phe	Ile	Ile	Gly	Asn 175	Leu
Met	Туг	Gly	Val 180	Val	Lys	Leu	Met	Lys 185	Ile	Met	Gly	Gln	Leu 190	Ser	Asp
Lys	Phe	Tyr 195	Tyr	Thr	Xaa	Xaa	Leu 200	Phe	Phe	Gly	Ala	Ile 205	Ile	Ser	Ala
Thr	Asp 210	Pro	Val	Thr	Val	Leu 215	Ala	Ile	Phe	Asn	Glu 220	Leu	His	Ala	Asp
Val 225	Asp	Leu	Tyr	Ala	Leu 230	Leu	Phe	Gly	Glu	Ser 235	Val	Leu	Asn	Asp	Ala 240
Val	Ala	Ile	Xaa	Leu 245	Xaa	Ser	Ser	Ile	Val 250	Ala	Tyr	Gln	Pro	Ala 255	Gly
Leu	Asn	Thr	His 260	Ala	Phe	Asp	Ala	Ala 265	Ala	Phe	Phe	Lys	Ser 270	Val	Gly
Ile	Phe	Leu 275	Gly	Ile	Phe	Ser	Gly 280	Ser	Phe	Thr	Met	Gly 285	Ala	Val	Thr
Gly	Val 290		Thr	Ala	Xaa	Val 295	Thr	Lys	Phe	Thr	Lys 300	Xaa	His	Xaa	Phe
Pro 305	Leu	Leu	Glu	Thr	Ala 310	Leu	Phe	Phe	Leu	Met 315		Trp	Ser	Thr	Phe 320
Leu	Leu	Ala	Glu	Ala 325		Gly	Phe	Thr	Gly 330	Val	Val	Ala	Val	Leu 335	Phe
Cys	Gly	Ile	Thr 340		Ala	His	Tyr	Thr 345	Tyr	Asn	Asn	Leu	Ser 350		Glu
Ser	Arg	Ser 355	Arg	Thr	Lys	Gln	Leu 360		Glu	Val	Leu	His 365		Leu	Ala
Glu	Asn 370		Ile	Phe	Ser	Туг 375		Gly	Leu	Ala	Leu 380		Thr	Phe	Glr
Lys 385		Val	Phe	Ser	Pro 390		Phe	Ile	Ile	Gly 395		Phe	Val	Ala	11e
Phe	Leu	Gly	Arg	Ala 405		His	Ile	Tyr	Pro 410		Ser	Phe	Phe	Leu 415	
Leu	Gly	'Arg	Arg 420		Lys	Ile	: Gly	Trp		Phe	Gln	His	Met 430		Met

Phe Ser Gly Leu Arg Gly Ala Met Ala Phe Ala Leu Ala Ile Arg Asp 435 440 445

Thr Ala Ser Tyr Ala Arg Gln Met Met Phe Thr Thr Thr Leu Leu Ile 450 455 460

Val Phe Phe Thr Val Trp Ile Ile Gly Gly Gly Thr Thr Pro Met Leu 465 470 475 480

Ser Trp Leu Asn Ile Arg Val Gly Val Asp Pro Asp Xaa Asp Pro Pro 485 490 495

Pro Xaa Xaa Asp Ser Phe Ala Phe Xaa Thr Glu Thr Ala 500 505

<210> 2188

<211> 146

<212> PRT

<213> Homo sapiens

<400> 2188

Met Thr Met Arg Ser Leu Leu Arg Thr Pro Phe Leu Cys Gly Leu Leu 1 5 10 15

Trp Ala Phe Cys Ala Pro Gly Ala Arg Ala Glu Glu Pro Ala Ala Ser 20 25 30

Phe Ser Gln Pro Gly Ser Met Gly Leu Asp Lys Asn Thr Val His Asp 35 40 45

Gln Glu His Ile Met Glu His Leu Glu Gly Val Ile Asn Lys Pro Glu 50 55 60

Ala Glu Met Ser Pro Gln Glu Leu Gln Leu His Tyr Phe Lys Met His 55 70 75 80

Asp Tyr Asp Gly Asn Asn Leu Leu Asp Gly Leu Glu Leu Ser Thr Ala 85 90 95

Ile Thr His Val His Lys Glu Glu Gly Ser Glu Gln Ala Pro Leu Met 100 105 110

Ser Glu Asp Glu Leu Ile Asn Ile Ile Asp Gly Val Leu Arg Asp Asp 115 120 125

Asp Lys Asn Asn Asp Gly Tyr Ile Asp Tyr Ala Glu Phe Ala Lys Ser 130 135 140

Leu Gln 145

<210> 2189

<211> 530

<212> PRT

<213> Homo sapiens

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<220>
<221> SITE
<222> (488)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (490)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (494)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (495)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (505)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 2189
Met Glu Phe Gly Leu Thr Trp Val Phe Leu Val Ala Leu Leu Arg Gly
Val His Cys Gln Val Gln Leu Val Glu Ser Gly Gly Ala Val Val Gln
Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
Ser Arg Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
Gln Trp Leu Ala Leu Val Leu His Asp Gly Gly Gln Lys Tyr Asn Glu
Asp Val Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Asn Asn
Lys Val Tyr Leu Gln Met Asp Ser Leu Arg Gly Glu Asp Thr Ala Thr
Tyr Tyr Cys Val Arg Gly Met Trp Glu Gln Leu Pro Ser Tyr Tyr Phe
        115
                            120
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Pro
                        135
Thr Ser Pro Lys Val Phe Pro Leu Ser Leu Cys Ser Thr Gln Pro Asp
145
Gly Asn Val Val Ile Ala Cys Leu Val Gln Gly Phe Phe Pro Gln Glu
                                     170
```

Pro Leu Ser Val Thr Trp Ser Glu Ser Gly Gln Gly Val Thr Ala Arg 135 Asn Phe Pro Pro Ser Gln Asp Ala Ser Gly Asp Leu Tyr Thr Thr Ser 200 Ser Gln Leu Thr Leu Pro Ala Thr Gln Cys Leu Ala Gly Lys Ser Val Thr Cys His Val Lys His Tyr Thr Asn Pro Ser Gln Asp Val Thr Val 235 230 Pro Cys Pro Val Pro Ser Thr Pro Pro Thr Pro Ser Pro Ser Thr Pro 245 250 Pro Thr Pro Ser Pro Ser Cys Cys His Pro Arg Leu Ser Leu His Arg 265 Pro Ala Leu Glu Asp Leu Leu Gly Ser Glu Ala Asn Leu Thr Cys Thr Leu Thr Gly Leu Arg Asp Ala Ser Gly Val Thr Phe Thr Trp Thr Pro Ser Ser Gly Lys Ser Ala Val Gln Gly Pro Pro Asp Arg Asp Leu Cys Gly Cys Tyr Ser Val Ser Ser Val Leu Pro Gly Cys Ala Glu Pro 325 Trp Asn His Gly Lys Thr Phe Thr Cys Thr Ala Ala Tyr Pro Glu Ser 340 345 Lys Thr Pro Leu Thr Ala Thr Leu Ser Lys Ser Gly Asn Thr Phe Arg 360 Pro Glu Val His Leu Leu Pro Pro Pro Ser Glu Glu Leu Ala Leu Asn 375 Glu Leu Val Thr Leu Thr Cys Leu Ala Arg Gly Phe Ser Pro Lys Asp 395 390 Val Leu Val Arg Trp Leu Gln Gly Ser Gln Glu Leu Pro Arg Glu Lys Tyr Leu Thr Trp Ala Ser Arg Gln Glu Pro Ser Gln Gly Thr Thr Thr 425 Phe Ala Val Thr Ser Ile Leu Arg Val Ala Ala Glu Asp Trp Lys Lys 440 Gly Asp Thr Phe Ser Cys Met Val Gly His Glu Ala Leu Pro Leu Ala Phe Thr Gln Lys Thr Ile Asp Arg Leu Ala Gly Lys Pro Thr His Val 470 Ash Val Ser Val Val Met Ala Xaa Val Xaa Gly Pro Cys Xaa Xaa Ala 485 490

Ala Arg Leu Ser Pro Pro Leu Asn Xaa Leu His Ala Pro Pro Lys Lys 500 505 510

Lys Lys 530

<210> 2190

<211> 265

<212> PRT

<213> Homo sapiens

<400> 2190

Met Gly Gly Gln Val Ala Gly Val Tyr Ala Ala Tyr Tyr Pro Ser Asp 1 5 10 15

Val Ser Ser Leu Cys Leu Val Cys Pro Ala Gly Leu Gln Tyr Ser Thr 20 25 30

Asp Asn Gln Phe Val Gln Arg Leu Lys Glu Leu Gln Gly Ser Ala Ala 35 40 $\cdot 45$

Val Glu Lys Ile Pro Leu Ile Pro Ser Thr Pro Glu Glu Met Ser Glu 50 60

Met Leu Gln Leu Cys Ser Tyr Val Arg Phe Lys Val Pro Gln Gln Ile 65 70 75 80

Leu Gln Gly Leu Val Asp Val Arg Ile Pro His Asn Asn Phe Tyr Arg 85 90 95

Lys Leu Phe Leu Glu Ile Val Ser Glu Lys Ser Arg Tyr Ser Leu His $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$

Gln Asn Met Asp Lys Ile Lys Val Pro Thr Gln Ile Ile Trp Gly Lys
115 120 125

Gln Asp Ala Gly Ala Gly Cys Val Trp Gly Arg His Val Gly Gln Val 130 135 140

Asn Cys Gln Leu Pro Gly Gly Ala Ser Gly Lys Leu Trp Ala Leu Ser 145 150 155 160

Ser Asp Gly Lys Thr Gln Glu Asp Ser Gln Ala His Asn Arg Leu Phe 165 170 175

Ser Phe Cys Ala Gln His Arg Gln Gln Gln Glu Ala Gly Leu Arg Pro \$180\$

Arg Leu Gln Pro Ala Phe Cys Thr Gln His Leu Leu Pro Ser Pro Lys 195 200 205

Ser Asp Ala Ala Thr Thr Leu Arg Asp Pro Ala Pro Asn Ala Val Gly 210 215 220

Ala Pro Val Thr Leu Arg Lys Pro Val Pro Tyr Pro Trp Tyr Pro Arg

225 230 235 24

Phe Prc Arg Ala Leu Gly Thr Thr Arg Lys Pro Pro Arg Tyr Phe Ser 245 250 255

Gln Asn Arg Asn Ser Tyr Gly Thr Lys 260 265

<210> 2191

<211> 99

<212> PRT

<213> Homo sapiens

<400> 2191

Met Ala Val Trp Gly Asp Thr Glu Leu Ala Ala Gly Val Phe Cys Phe 1 5 10 15

Phe Leu Phe Phe Cys Phe Leu Tyr Leu Ser Gly Thr Trp Asn Ala Ser 20 25 30

Lys Thr Glu Leu Phe Thr Pro Leu Glu Arg Glu Leu Lys Pro Gly His 35 40 45

Pro Ser Gly Met Leu Ser Gly Ser His Pro His Gly Ala Gln Gln Ala 50 55 60

Lys Ser Thr Gly Leu Lys Leu Ser Leu Pro Ala Gln Gln Ser Glu Val 65 70 .75 80

Asp Leu Gly Cys Ser Ser Leu Val Trp Gly Gly Ala Ser Ala Ile Thr 85 90 95

Glu Ala Leu

<210> 2192

<211> 144

<212> PRT

<213> Homo sapiens

<400> 2192

Met Pro Thr Thr Glu Gln Pro Val Thr Thr Thr Phe Pro Val Thr
1 5 10 15

Thr Gly Leu Lys Pro Thr Val Ala Leu Cys Gln Gln Lys Cys Arg Arg 20 25 30

Thr Gly Thr Leu Glu Gly Asn Tyr Cys Ser Ser Asp Phe Val Leu Ala 35 40 45

Gly Thr Val Ile Thr Thr Ile Thr Arg Asp Gly Ser Leu His Ala Thr

Val Ser Ile Ile Asm Ile Tyr Lys Glu Gly Asm Leu Ala Ile Glm Glm 65 70 75 80

Ala Gly Lys Asn Met Ser Ala Arg Leu Thr Val Val Cys Lys Gln Cys 85 90 95

- Pro Leu Leu Arg Arg Gly Leu Asn Tyr Ile Ile Met Gly Gln Val Gly
 100 105 110
- Glu Asp Gly Arg Gly Lys Ile Met Pro Asn Ser Phe Ile Met Met Phe 115 120 125
- Lys Thr Lys Asn Gln Lys Leu Leu Asp Ala Leu Lys Asn Lys Gln Cys 130 135 140

<210> 2193

<211> 294

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2193

Met Met Val Gln Met Ile Ser Asp Ala Asn Thr Ala Gly Asn Gly Phe

1 10 15

Met Ala Met Phe Ser Ala Ala Glu Pro Asn Glu Arg Gly Asp Gln Tyr

Cys Gly Gly Leu Leu Asp Arg Pro Ser Gly Ser Phe Lys Thr Pro Asn 35 40 45

Trp Pro Asp Arg Asp Tyr Pro Ala Gly Val Thr Cys Val Trp His Ile 50 60

Val Ala Pro Lys Asn Gln Leu Ile Glu Leu Lys Phe Glu Lys Phe Asp
65 70 75 80

Val Glu Arg Asp Asn Tyr Cys Arg Tyr Asp Tyr Val Xaa Val Phe Asn 85 90 95

Xaa Gly Glu Val Asn Asp Ala Arg Arg Ile Gly Lys Tyr Cys Gly Asp 100 105 110

Ser Pro Pro Ala Pro Ile Val Ser Glu Arg Asn Glu Leu Leu Ile Gln 115 120 125

Phe Leu Ser Asp Leu Ser Leu Thr Ala Asp Gly Phe Ile Gly His Tyr 130 135 140

fle Phe Arg Pro Lys Lys Leu Pro Thr Thr Thr Glu Gln Pro Val Thr 145 150 155 160

Thr Thr Phe Pro Val Thr Thr Gly Leu Lys Pro Thr Val Ala Leu Cys 165 170 175

Gln Gln Lys Cys Arg Arg Thr Gly Thr Leu Glu Gly Asn Tyr Cys Ser 180 185 190

Ser Asp Phe Val Leu Ala Gly Thr Val Ile Thr Thr Ile Thr Arg Asp 195 200 205

Gly Ser Leu His Ala Thr Val Ser Ile Ile Asn Ile Tyr Lys Glu Gly 210 215 220

Asn Leu Ala Ile Gln Gln Ala Gly Lys Asn Met Ser Ala Arg Leu Thr 225 230 235 240

Val Val Cys Lys Gln Cys Pro Leu Leu Arg Arg Gly Leu Asn Tyr Ile 245 250 255

Ile Met Gly Gln Val Gly Glu Asp Gly Arg Gly Lys Ile Met Pro Asn 260 265 270

Ser Phe Ile Met Met Phe Lys Thr Lys Asn Gln Lys Leu Leu Asp Ala 275 280 285

Leu Lys Asn Lys Gln Cys 290

<210> 2194

<211> 487

<212> PRT

<213> Homo sapiens

<400> 2194

Met Lys His Leu Trp Phe Phe Leu Leu Val Ala Ala Pro Arg Trp $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys
20 25 30

Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile 35 40 45

Ser Ser Gly Gly His Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys 50 55 60

Gly Leu Glu Trp Ile Gly Tyr Ile Ser Tyr Asn Gly Val Thr Tyr Tyr
65 70 75 80

Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Gln 85 90 95

Asn Gln Phe Ser Leu Arg Leu Ser Ser Val Thr Ala Ala Asp Thr Ala 100 105 110

Val Tyr Tyr Cys Ala Lys Asp His Arg Ala Thr Arg Asp Gly Tyr Gln

****	01,,,,	157													C 17 O
		115					120					125			
Leu	Glu 130	Tyr	Arg	Gly	Phe	Asp 135	Tyr	Trp	Gly	Gln	Gly 140	Ile	Leu	Val	Thr
Val 145	Ser	Ser	Ala	Ser	Pro 150	Thr	Ser	Pro	Lys	Val 155	Phe	Pro	Leu	Ser	Leu 160
Asp	Ser	Thr	Pro	Gln 165	Asp	Gly	Asn	Val	Val 170	Val	Ala	Cys	Leu	Val 175	Gln
Glγ	Phe	Phe	Pro 180	Gln	Glu	Pro	Leu	Ser 185	Val	Thr	Trp	Ser	GIu 190	Ser	Gly
Gln	Asn	Val 195	Thr	Ala	Arg	Asn	Phe 200	Pro	Pro	Ser	Gln	Asp 205	Ala	Ser	Gly
Asp	Leu 210	Tyr	Thr	Thr	Ser	Ser 215	Gln	Leu	Thr	Leu	Pro 220	Ala	Thr	Gln	Cys
Pro 225	Asp	Gly	Lys	Ser	Val 230	Thr	Сув	His	Val	Lys 235	His	Tyr	Thr	Asn	Pro 240
Ser	Gln	Asp	Val	Thr 245	Val	Pro	Cys	Pro	Val 250	Pro	Pro	Pro	Pro	Pro 255	Cys
Cys	His	Pro	Arg 260	Leu	Ser	Leu	His	Arg 265	Pro	Ala	Leu	Glu	Asp 270	Leu	Leu
Leu	Gly	Ser 275	Glu	Ala	Asn	Leu	Thr 280	Cys	Thr	Leu	Thr	Gly 285	Leu	Arg	Asp
Ala	Ser 290	Gly	Ala	Thr	Phe	Thr 295	Trp	Thr	Pro	Ser	Ser 300	Gly	Lys	Ser	Ala
Val 305	Gln	Gly	Pro	Pro	Glu 310	Arg	Asp	Leu	Cys	Gly 315	Cys	Tyr	Ser	Val	Ser 320
Ser	Val	Leu	Pro	Gly 325	Cys	Ala	Gln	Pro	Trp 330		His	Gly	Glu	Thr 335	Phe
Thr	Суѕ	Thr	Ala 340		His	Pro	Glu	Leu 345		Thr	Pro	Leu	Thr 350	Ala	Asn
Ile	Thr	Lys 355	Ser	Gly	Asn	Thr	Phe 360		Pro	Glu	Val	His 365		Leu	Pro
Pro	Pro	Ser	Glu	Glu	Leu	Ala	Leu	Asn	Glu	Leu	Val		Leu	Thr	Cys

Leu Ala Arg Gly Phe Ser Pro Lys Asp Val Leu Val Arg Trp Leu Gln 385 390 . 395

Gly Ser Gln Glu Leu Pro Arg Glu Lys Tyr Leu Thr Trp Ala Ser Arg

Gln Glu Pro Ser Gln Gly Thr Thr Thr Phe Ala Val Thr Ser Ile Leu 425

Arg Val Ala Ala Glu Asp Trp Lys Lys Gly Asp Thr Phe Ser Cys Met

435 440 445

Val Gly His Glu Ala Leu Pro Leu Ala Phe Thr Gln Lys Thr Ile Asp 450 455 460

Arg Leu Ala Gly Lys Pro Thr His Val Asn Val Ser Val Val Met Ala 465 470 475 480

Glu Val Asp Gly Thr Cys Tyr 485

<210> 2195

<211> 189

<212> PRT

<213> Homo sapiens

<400> 2195

Met Gly Gly Gln Val Ala Gly Val Tyr Ala Ala Tyr Tyr Pro Ser Asp 1 5 10

Val Ser Ser Leu Cys Leu Val Cys Pro Ala Gly Leu Gln Tyr Ser Thr 20 25 30

Asp Asn Gln Phe Val Gln Arg Leu Lys Glu Leu Gln Gly Ser Ala Ala 35 40 45

Val Glu Lys Ile Pro Leu Ile Pro Ser Thr Pro Glu Glu Met Ser Glu 50 55 60

Met Leu Gln Leu Cys Ser Tyr Val Arg Phe Lys Val Pro Gln Gln Ile 65 70 75 80

Leu Gln Gly Leu Val Asp Val Arg Ile Pro His Asn Asn Phe Tyr Arg 85 90 95

Lys Leu Phe Leu Glu Ile Val Ser Glu Lys Ser Arg Tyr Ser Leu His $100 \,$ $105 \,$ $110 \,$

Gln Asn Met Asp Lys Ile Lys Val Pro Thr Gln Ile Ile Trp Gly Lys 115 120 125

Gln Asp Gln Val Leu Asp Val Ser Gly Ala Asp Met Leu Ala Lys Ser 130 135 140

Ile Ala Asn Cys Gln Val Glu Leu Leu Glu Asn Cys Gly His Ser Val 145 150 155 160

Val Met Glu Arg Pro Arg Lys Thr Ala Lys Leu Ile Ile Asp Phe Leu 165 170 175

Ala Ser Val His Asn Thr Asp Asn Asn Lys Lys Leu Asp 180 185

<310> 2196

<311> 298

<212> PRT

<213> Homo sapiens

<400> 2196

Met Lys Thr Leu Gln Ser Thr Leu Leu Leu Leu Leu Leu Val Pro Leu 1 5 10 15

Ile Lys Pro Ala Pro Pro Thr Gln Gln Asp Ser Arg Ile Ile Tyr Asp 20 25 30

Tyr Gly Thr Asp Asn Phe Glu Glu Ser Ile Phe Ser Gln Asp Tyr Glu 35 40 45

Asp Lys Tyr Leu Asp Gly Lys Asn Ile Lys Glu Lys Glu Thr Val Ile 50 55 60

Ile Pro Asn Glu Lys Ser Leu Gln Leu Gln Lys Asp Glu Ala Ile Thr 65 70 75 80

Pro Leu Pro Pro Lys Lys Glu Asn Asp Glu Met Pro Thr Cys Leu Leu 85 90 95

Cys Val Cys Leu Ser Gly Ser Val Tyr Cys Glu Glu Val Asp Ile Asp 100 105 110

Ala Val Pro Pro Leu Pro Lys Glu Ser Ala Tyr Leu Tyr Ala Arg Phe 115 120 125

Asn Lys Ile Lys Lys Leu Thr Ala Lys Asp Phe Ala Asp Ile Pro Asn 130 135 140

Leu Arg Arg Leu Asp Phe Thr Gly Asn Leu Ile Glu Asp Ile Glu Asp 145 150 155 160

Gly Thr Phe Ser Lys Leu Ser Leu Leu Glu Glu Leu Ser Leu Ala Glu
165 170 175

Asn Gln Leu Lys Leu Pro Val Leu Pro Pro Lys Leu Thr Leu Phe 180 185 190

Asn Ala Lys Tyr Asn Lys Ile Lys Ser Arg Gly Ile Lys Ala Asn Ala 195 200 205

Phe Lys Lys Leu Asn Asn Leu Thr Phe Leu Tyr Leu Asp His Asn Ala 210 215 220

Leu Glu Ser Val Pro Leu Asn Leu Pro Glu Ser Leu Arg Val Ile His 225 230 235 240

Leu Gln Phe Asn Asn Ile Ala Ser Ile Thr Asp Asp Thr Phe Cys Lys 245 250 255

Ala Asn Asp Thr Ser Tyr Ile Arg Asp Arg Ile Glu Glu Ile Arg Leu 260 265 270

Glu Gly Asn Pro Ile Val Leu Gly Lys His Pro Asn Ser Phe Ile Cys 275 280 285

Leu Lys Arg Leu Pro Ile Gly Ser Tyr Phe 290 295

<210> 2197

<311> 298

<212> PRT

<213> Homo sapiens

<400> 2197

Met Lys Thr Leu Gln Ser Thr Leu Leu Leu Leu Leu Leu Val Pro Leu 1 5 10 15

Ile Lys Pro Ala Pro Pro Thr Gln Gln Asp Ser Arg Ile Ile Tyr Asp
20 25 30

Tyr Gly Thr Asp Asn Phe Glu Glu Ser Ile Phe Ser Gln Asp Tyr Glu 35 40 45

Asp Lys Tyr Leu Asp Gly Lys Asn fle Lys Glu Lys Glu Thr Val Ile 50 55 60

Ile Pro Asn Glu Lys Ser Leu Gln Leu Gln Lys Asp Glu Ala Ile Thr 65 70 75 80

Pro Leu Pro Pro Lys Lys Glu Asn Asp Glu Met Pro Thr Cys Leu Leu 85 90 95

Cys Val Cys Leu Ser Gly Ser Val Tyr Cys Glu Glu Val Asp Ile Asp 100 105 110

Ala Val Pro Pro Leu Pro Lys Glu Ser Ala Tyr Leu Tyr Ala Arg Phe 115 120 125

Asn Lys Ile Lys Lys Leu Thr Ala Lys Asp Phe Ala Asp Ile Pro Asn 130 135 140

Leu Arg Arg Leu Asp Phe Thr Gly Asn Leu Ile Glu Asp Ile Glu Asp 145 150 155 160

Gly Thr Phe Ser Lys Leu Ser Leu Leu Glu Glu Leu Ser Leu Ala Glu
165 170 175

Asn Gln Leu Lys Leu Pro Val Leu Pro Pro Lys Leu Thr Leu Phe

Asn Ala Lys Tyr Asn Lys Ile Lys Ser Arg Gly Ile Lys Ala Asn Ala 195 200 205

Phe Lys Lys Leu Asn Asn Leu Thr Phe Leu Tyr Leu Asp His Asn Ala 210 215 220

Leu Glu Ser Val Pro Leu Asn Leu Pro Glu Ser Leu Arg Val Ile His 225 230 235 240

Leu Gln Phe Asn Asn Ile Ala Ser Ile Thr Asp Asp Thr Phe Cys Lys 245 250 255

Ala Asn Asp Thr Ser Tyr Ile Arg Asp Arg Ile Glu Glu Ile Arg Leu 260 265 270

Glu Gly Asn Pro Ile Val Leu Gly Lys His Pro Asn Ser Phe Ile Cys

275 280 285

Leu Lys Arg Leu Pro Ile Gly Ser Tyr Phe 290 295

<210> 2198

<211> 42

<212> PRT

<213> Homo sapiens

<400> 2198

Met Glu Cys Lys Lys Arg Ile Gln Leu Ile Met Leu Ala Ser Ile Val 1 5 10

Arg Leu Pro Pro Thr Glu Gln Ser Gly Leu Leu Lys Thr Arg Phe His 20 25 30

Asn Phe Cys Gln Arg Asn Leu Gln Ser Ser 35 40

<210> 2199

<211> 472

<212> PRT

<213> Homo sapiens

<400> 2199

Met Ile Arg Thr Arg Arg Gly Trp Ser Ser Met Trp Pro Trp Ile Gly

1 10 15

Val Gly Tyr Leu Ala Gly Cys Leu Val His Ala Leu Gly Glu Lys Gln
20 25 30

Pro Glu Leu Gln Ile Ser Glu Arg Asp Val Leu Cys Val Gln Ile Ala 35 40 45

Gly Leu Cys His Asp Leu Gly His Gly Pro Phe Ser His Met Phe Asp 50 55 60

Gly Arg Phe Ile Pro Leu Ala Arg Pro Glu Val Lys Trp Thr His Glu 65 70 75 80

Gln Gly Ser Val Met Met Phe Glu His Leu Ile Asn Ser Asn Gly Ile 85 90 95

Lys Pro Val Met Glu Gln Tyr Gly Leu Ile Pro Glu Glu Asp Ile Cys
100 105

Phe Ile Lys Glu Gln Ile Val Gly Pro Leu Glu Ser Pro Val Glu Asp 115 120 125

Ser Leu Trp Pro Tyr Lys Gly Arg Pro Glu Asn Lys Ser Phe Leu Tyr 130 135

Glu Ile Val Ser Asn Lys Arg Asn Gly Ile Asp Val Asp Lys Trp Asp 145 150 155 160

Tyr	Phe	Ala	Arg	Asp 165	Cys	His	His	Leu	G1y 170	ile	Gin	Asn	Asn	Phe 175	Asp
Tyr	Lys	Arg	Phe 180	Ile	Lys	Phe	Ala	Arg 185	Val	Суs	Glu	Val	Asp 190	Asn	Glu
Leu	Arg	Ile 195	Cys	Ala	Arg	Asp	Lys 200	Glu	Val	Gly	Asn	Leu 205	Tyr	Asp	Met
Phe	His 210	Thr,	Arg	Asn	Ser	Leu 215	His	Arg	Arg	Ala	Tyr 220	Gln	His	Lys	Val
Gly 225	Asn	Ile	Ile	Asp	Thr 230	Met	Ile	Thr	Asp	Ala 235	Phe	Leu	Glu	Ala	Asp 240
Asp	Tyr	Ile	Glu	Ile 245	Thr	Gly	Ala	Gly	Gly 250	Lys	Lys	Tyr	Arg	Ile 255	Ser
Thr	Ala	Ile	Asp 260	Asp	Met	Glu	Ala	Tyr 265	Thr	Lys	Leu	Thr	Asp 270	Asn	Ile
Phe	Leu	Glu 275	Ile	Leu	Tyr	Ser	Thr 280	qzA	Pro	Lys	Leu	Lys 285	Asp	Ala	Arg
Glu	Ile 290	Leu	Lys	Gln	Ile	Glu 295	Tyr	Arg	Asn	Leu	Phe 300	Lys	Tyr	Val	Gly
Glu 305	Thr	Gln	Pro	Thr	Gly 310	Gln	Ile	Lys	Ile	Lys 315	Arg	Glu	Asp	Tyr	Glu 320
Ser	Leu	Pro	Lys	Glu 325		Ala	Ser	Ala	Lys 330	Pro	Lys	Val	Leu	Leu 335	Asp
Val	Lys	Leu	Lys 340	Ala	Glu	Asp	Phe	11e 345	Val	Asp	Val	Ile	Asn 350	Met	Asp
Tyr	Gly	Met 355	Gln	Glu	Lys	Asn	Pro 360	Ile	Asp	His	Val	Ser 365	Phe	Tyr	Cys
Lys	Thr 370	Ala	Pro	Asn	Arg	Ala 375	Ile	Arg	Ile	Thr	Lys 380	Asn	Gln	Val	Ser
Gln 385	Leu	Leu	Pro	Glu	Lys 390	Phe	Ala	Glu	Gln	Leu 395	Ile	Arg	Val	Tyr	Cys 400
Lys	Lys	Val	Asp	Arg 405	Lys	Ser	Leu	Tyr	Ala 410	Ala	Arg	Gln	Tyr	Phe 415	Val
Gln	Trp	Cys	Ala 420	Asp	Arg	Asn	Phe	Thr 425	Lys	Pro	Gln	Asp	Gly 430	Asp	Val
Ile	Ala	Pro 435	Leu	Ile	Thr	Pro	Gln 440	Lys	Lys	Glu	Trp	Asn 445	Asp	Ser	Thr
Ser	7al 450	Gln	Asn	Pro	Thr	Arg 455		Arg	Glu	Ala	Ser 460	Lys	Ser	Arg	Val
Gln 465	Leu	Phe	Lys	Asp	Asp 470	Pro	Met								

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<210> 2200
<211> 626
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (353)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (354)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (363)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 2200
Met Gln Arg Ala Asp Ser Glu Gln Pro Ser Lys Arg Pro Arg Cys Asp
Asp Ser Pro Arg Thr Pro Ser Asn Thr Pro Ser Ala Glu Ala Asp Trp
Ser Pro Gly Leu Glu Leu His Pro Asp Tyr Lys Thr Trp Gly Pro Glu
                             40
Gln Val Cys Ser Phe Leu Arg Arg Gly Gly Phe Glu Glu Pro Val Leu
Leu Lys Asn Ile Arg Glu Asn Glu Ile Thr Gly Ala Leu Leu Pro Cys
Leu Asp Glu Ser Arg Phe Glu Asn Leu Gly Val Ser Ser Leu Gly Glu
Arg Lys Lys Leu Leu Ser Tyr Ile Gln Arg Leu Val Gln Ile His Val
                                105
Asp Thr Met Lys Val Ile Asn Asp Pro Ile His Gly His Ile Glu Leu
        115
His Pro Leu Leu Val Arg Ile Ile Asp Thr Pro Gln Phe Gln Arg Leu
Arg Tyr Ile Lys Gln Leu Gly Gly Gly Tyr Tyr Val Phe Pro Gly Ala
                    150
Ser His Asn Arg Phe Glu His Ser Leu Gly Val Gly Tyr Leu Ala Gly
Cys Leu Val His Ala Leu Gly Glu Lys Gln Pro Glu Leu Gln Ile Ser
            180
                                185
Glu Arg Asp Val Leu Cys Val Gln Ile Ala Gly Leu Cys His Asp Leu
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		195					200					205			
Gly	His 210	Gly	Pro	Phe	Ser	His 215	Met	Phe	Asp	Gly	Arg 220	Phe	Ile	Pro	Leu
Ala 225	Arg	Pro	Glu	Val	Lys 230	Trp	Thr	His	Glu	Gln 235	Gly	Ser	Val	Met	Met 240
Phe	Glu	His	Leu	Ile 245	Asn	Ser	Asn	Gly	Ile 250	Lys	Pro	Val	Met	Glu 255	Gln
Tyr	Gly	Leu	Ile 260	Pro	Glu	Glu	Asp	Ile 265	Cys	Phe	Ile	Lys	Glu 270	Gln	Ile
Val	Gly	Pro 275	Leu	Glu	Ser	Pro	Val 280	Glu	Asp	Ser	Leu	Trp 285	Pro	Tyr	Lys
Gly	Arg 290	Pro	Glu	Asn	Lys	Ser 295	Phe	Leu	Tyr	Glu	Ile 300	Val	Ser	Asn	Lys
Arg 305	Asn	Gly.	Ile	Asp	Val 310	Asp	Lys	Trp	Asp	Tyr 315	Phe	Ala	Arg	Asp	Cys 320
His	His	Leu	Gly	Ile 325	Gln	Asn	Asn	Phe	Asp 330	Tyr	Lys	Arg	Phe	11e 335	Lys
Phe	Ala	Arg	Val 340	Cys	Glu	Val	Asp	Asn 345	Glu	Leu	Arg	Ile	Суs 350	Ala	Arg
Xaa	Хаа	Glu 355	Val	Gly	Asn	Leu	Tyr 360	Asp	Met	Xaa	His	Thr 365	Arg	Asn	Ser
Leu	His 370	Arg	Arg	Ala	Tyr	Gln 375	His	Lys	Val	Gly	Asn 380	Ile	Ile	Asp	Thr
Met 385	Ile	Thr	Asp	Ala	Phe 390	Leu	Lys	Ala	Asp	Asp 395	Tyr	Ile	Glu	Ile	Thr 400
Gly	Ala	Gly	Gly	Lys 405	Lys	Tyr	Arg	Ile	Ser 410	,Thr	Ala	Ile	Asp	Asp 415	Met
			420					425					430		Tyr
Ser	Thr	Asp 435	Pro	Lys	Leu	Lys	Asp 440	Ala	Arg	Glu	Ile	Leu 445	Lys	Gln	Ile
Glu	Туг 450	Arg	Asn	Leu	Phe	Lys 455	Tyr	Val	Gly	Glu	Thr 460	Gln	Pro	Thr	Gly
Gln 465	Ile	Lys	Ile	Lys	Arg 470	Glu	Asp	Tyr	Glu	Ser 475	Leu	Pro	Lys	Glu	Val 480
				485					490					495	Glu
			500					505					510		Lys
Asr.	Fro	Ile	Asp	His	Val	Ser	Phe	Tyr	Cys	Lys	Thr	Ala	Pro	Asn	Arg

515 520 525

Ala Ile Arg Ile Thr Lys Asn Gln Val Ser Gln Leu Leu Pro Glu Lys 530 535 540

Phe Ala Glu Gln Leu Ile Arg Val Tyr Cys Lys Lys Val Asp Arg Lys 545 550 555 560

Ser Leu Tyr Ala Ala Arg Gln Tyr Phe Val Gln Trp Cys Ala Asp Arg 565 570 575

Asn Phe Thr Lys Pro Gln Asp Gly Asp Val Ile Ala Pro Leu Ile Thr 580 585 590

Pro Gln Lys Lys Glu Trp Asn Asp Ser Thr Ser Val Gln Asn Pro Thr 595 600 605

Arg Leu Arg Glu Ala Ser Lys Ser Arg Val Gln Leu Phe Lys Asp Asp 610 615 620

Pro Met 625

<210> 2201

<211> 245

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2201

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser 1 5 10 15

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys
20 25 30

Lys Gly Glu Äla Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln
50 60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly 65 70 75 80

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile 85 90 95

Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln
100 105 110

Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Xaa 115 120 125

Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr 130 135 140

Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr 145 150 155 160

Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val 165 170 175

Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr

Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln
195 200 205

Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly 210 215 220

His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu 225 230 235 240

Ile Phe Pro Ser Ala 245

<210> 2202

<211> 32

<212> PRT

<213> Homo sapiens

<400> 2202

Met Gly Val Asn Lys Val Leu Phe Thr Phe Phe Phe Phe Ser Ser Leu 1 5 10 15

Leu Asp Gly Val Gly Thr Ser His Ser Leu Ala Ser Phe Pro His Thr 20 25 30

<210> 2203

<211> 245

<212> PRT

<213> Homo sapiens

<400> 2203

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser 1 5 10

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys
20 25 30

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys 35 40 45

Gly Gli Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln
50 55 60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly 65 70 75 80

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile 85 90 95

Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln $100 \,$ $105 \,$ $110 \,$

Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly 115 120 125

Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr 130 135 140

Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr 145 150 155 160

Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val 165 170 175

Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr 180 185 190

Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln
195 200 205

Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly 210 215 220

His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu 225 230 235 240

Ile Phe Pro Ser Ala 245

<210> 2204

<211> 245

<212> PRT

<213> Homo sapiens

<400> 2204

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys 20 25 30

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys
35 40 45

Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln
50 55 60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly 65 70 75 80

Lys Val Gly Tyr Fro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile 85 90 95

Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln
100 105 110

Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly 115 120 125

Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr 130 135 140

Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr 145 150 155 160

Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val 165 $$170\$

Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr 180 185 190

Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln 195 200 205

Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly 210 215 220

His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu 225 230 235 235

Ile Phe Pro Ser Ala 245

<210> 2205

<211> 245

<212> PRT

<213> Homo sapiens

<400> 2205

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser 1 5 10 15

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys 20 25 30

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys 35 40 45

Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln 50 55 60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly 65 70 75 80

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile
85 90 95

Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln

100 105 110

Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly 115 120 125

Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr 130 135 140

Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr 145 150 155 160

Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val 165 170 175

Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr

Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln 195 200 205

Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly 210 215 220

His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu 225 230 235 240

Ile Phe Pro Ser Ala 245

<210> 2206

<211> 245

<212> PRT

<213> Homo sapiens

<400> 2206

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser 1 5 10 15

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys
20 25 30

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln
50 55 60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly 65 70 75 80

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile 85 90 95

Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln
100 105 110

Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly
115 120 125

Ash Val Val Ile Phe Asp Thr Val Ile Thr Ash Gln Glu Glu Pro Tyr 135 Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr 150 155 Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val 165 Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr 185 Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln 195 Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly 215 His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu 230 235 Ile Phe Pro Ser Ala <210> 2207 <211> 229 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (47) <223> Xaa equals any of the naturally occurring L-amino acids <220> <201> SITE <222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2207

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Xaa Lys

Xaa Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile

Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln 85 90

Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly
100 105 110

Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr 115 120 125

Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr 130 135 140

Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val 145 150 155 160

Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr 165 170 175

Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln
180 185 190

Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly
195 200 205

His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu 210 215 220

Ile Phe Pro Ser Ala 225

<210> 2208

<211> 207

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2208

Met Asp Val Gly Pro Ser Ser Leu Pro His Leu Gly Leu Lys Leu Leu 1 5 10 15

Leu Leu Leu Leu Leu Pro Leu Arg Gly Gln Ala Asn Thr Gly Cys
20 25 30

Tyr Gly Ile Pro Gly Met Pro Gly Leu Pro Gly Ala Pro Gly Lys Asp 35 40 45

Gly Tyr Asp Gly Leu Pro Gly Pro Lys Gly Glu Pro Gly Ile Pro Ala 50 55 60

Pro Val Ser Val His Gly His Ser Ala Asp Pro Pro Ala Pro Cys Thr 85 90 95

Gln Gln Pro Asp Gln Ile Gln Arg Gly Pro His Gln Pro Ala Glu Xaa 100 105 110

Tyr Asp Thr Ser Thr Gly Lys Phe Thr Cys Lys Val Pro Gly Leu Tyr 115 120 125

Tyr Phe Val Tyr His Ala Ser His Thr Ala Asn Leu Cys Val Leu Leu 130 135 140

Tyr Arg Ser Gly Val Lys Val Val Thr Phe Cys Gly His Thr Ser Lys 145 150 155 160

Thr Asn Gln Val Asn Ser Gly Gly Val Leu Leu Arg Leu Gln Val Gly
165 170 175

Glu Glu Val Trp Leu Ala Val Asn Asp Tyr Tyr Asp Met Val Gly Ile 180 185 190

Gln Gly Ser Asp Ser Val Phe Ser Gly Phe Leu Leu Phe Pro Asp 195 200 205

<210> 2209

<211> 235

<212> PRT

<213> Homo sapiens

<400> 2209

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 10 15

Leu Arg Gly Ala Arg Cys Asp Met Gln Met Thr Gln Ser Pro Ser Ser 20 , 25 30

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Thr Ser 35 40 45

Gln Ser Ile Gly Lys Phe Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gln
50 55 60

Ala Pro Lys Leu Leu Ile Ser Gly Ala Ser Ile Leu Gln Thr Gly Val 65 70 75 80

Pro Ser Arg Phe Ser Gly Ser Gly Ser Ala Thr Tyr Phe Thr Leu Thr 85 90 95

Ile Asn Asp Leu His Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Gl
n Gln 100 \$105\$

Asp Tyr Thr Thr Pro Leu Phe Gly Gln Gly Thr Lys Val Glu Ile Lys

15 120 125

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu 130 135 140

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe 145 150 155 160

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln 165 170 175

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser 180 185 190

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu 195 200 205

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser 210 220

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys 225 230 235

<210> 2210

<211> 234

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2210

Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Trp Leu Ser 1 5 10 15

Gly Ala Arg Cys Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser 20 25 30

Ala Ser Leu Gly Asp Ser Val Thr Ile Thr Cys Gln Ala Ser Gln Asp 35 40 45

Ile Ala Asn Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Pro Pro 50 55 60

Lys Leu Val Ile Phe Asp Gly Ser Ile Leu His Thr Gly Val Pro Ser 65 70 75 80

Arg Phe Ser Gly Gly Ser Gly Thr His Phe Thr Phe Thr Ile Asn 85 90 95

Asn Leu Gln Pro Asp Asp Val Ala Thr Tyr Ser Cys Gln Gln Tyr Asn 100 105 110

Thr Phe Pro Leu Thr Phe Gly Xaa Gly Thr Lys Val Glu Ile Lys Arg 115 120 125

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln 130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr 145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser 165 170 175

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr 180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys 195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro 210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys 225 230

<210> 2211

<211> 206

<212> PRT

<213> Homo sapiens

<400> 2211

Met Asp Val Gly Pro Ser Ser Leu Pro His Leu Gly Leu Lys Leu Leu 1 5 10 15

Leu Leu Leu Leu Leu Pro Leu Arg Gly Gln Ala Asn Thr Gly Cys
20 25 30

Tyr Gly Ile Pro Gly Met Pro Gly Leu Pro Gly Ala Pro Gly Lys Asp \$35\$

Gly Tyr Asp Gly Leu Pro Gly Pro Lys Gly Glu Pro Gly Ile Pro Ala 50 60

Ile Pro Gly Ile Arg Gly Pro Lys Gly Arg Tyr Lys Gln Lys Phe Gln 65 70 75 80

Ser Val Phe Thr Val Thr Arg Gln Thr His Gln Pro Pro Ala Pro Asn 85 90 95

Ser Leu Ile Arg Phe Asn Ala Val Leu Thr Asn Pro Gln Gly Asp Tyr
100 105 110

Asp Thr Ser Thr Gly Lys Phe Thr Cys Lys Val Pro Gly Leu Tyr Tyr 115 120 125

Phe Val Tyr His Ala Ser His Thr Ala Asn Leu Cys Val Leu Leu Tyr 130 140

Arg Ser Gly Val Lys Val Val Thr Phe Cys Gly His Thr Ser Lys Thr 145 150 155 160

Asn Gln Val Asn Ser Gly Gly Val Leu Leu Arg Leu Gln Val Gly Glu

165 170 1

Glu Val Trp Leu Ala Val Asn Asp Tyr Tyr Asp Met Val Gly Ile Gln 180 185 190

Gly Ser Asp Ser Val Phe Ser Gly Phe Leu Leu Phe Pro Asp 195 200 205

<210> 2212

<211> 208

<212> PRT

<213> Homo sapiens

<400> 2212

Met Asp Val Gly Pro Ser Ser Leu Pro His Leu Gly Leu Lys Leu Leu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Leu Leu Leu Leu Pro Leu Arg Gly Gln Ala Asn Thr Gly Cys
20 25 30

Tyr Gly Ile Pro Gly Met Pro Gly Leu Pro Gly Ala Pro Gly Lys Asp 35 40 45

Gly Tyr Asp Gly Leu Pro Gly Pro Lys Gly Glu Pro Gly Ile Pro Ala 50 60

Ile Pro Gly Ile Arg Gly Pro Lys Gly Gln Lys Gly Glu Pro Gly Leu 65 70 75 80

Pro Gly His Pro Gly Lys Asn Gly Pro Met Gly Pro Pro Gly Met Pro 85 90 95

Gly Val Pro Gly Pro Met Gly Ile Pro Gly Glu Pro Gly Glu Glu Gly 100 105 110

Arg Tyr Lys Gln Lys Phe Gln Ser Val Phe Thr Val Thr Arg Gln Thr
115 120 125

His Gln Pro Pro Ala Pro Asn Ser Leu Ile Arg Phe Asn Ala Val Leu 130 135 140

Thr Asn Pro Gln Glu Ile Met Thr Arg Ala Leu Ala Ser Ser Pro Ala 145 150 155 160

Lys Ser Pro Ala Ser Thr Thr Leu Ser Thr Thr Arg Arg Ile Gln Pro 165 170 175

Thr Cys Ala Cys Cys Cys Thr Ala Ala Ser Lys Trp Ser Pro Ser 180 185 190

Val Ala Thr Arg Pro Lys Pro Ile Arg Ser Thr Arg Ala Val Cys Cys 195 200 205

<001/7/13/

<210> 2213
<211> 263
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (27)

<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<100> 2213

Met Cys Leu Leu Gly Gly Leu Ser Ala Pro Pro Leu Leu Leu Leu Pro 1 5 10

Leu Leu Pro Leu Leu Leu Cys Pro Pro Thr Xaa Gln Gly Asp Cys Ser 20 25 30

Phe Pro Pro Glu Leu Pro Asn Ala Ile Gln Ser Val Gly Asp Gln Gln 35 40 45

Ser Phe Pro Glu Lys Phe Thr Val Thr Tyr Lys Cys Lys Glu Gly Phe 50 60

Val Lys Val Pro Gly Lys Ala Asp Ser Val Val Cys Leu Asn Asn Lys 65 70 75 80

Trp Ser Glu Val Ala Glu Phe Cys Asn Arg Ser Cys Asp Val Pro Thr 85 90 95

Arg Leu Gln Phe Ala Ser Leu Lys Lys Ser Phe Thr Lys Gln Asn Xaa 100 105 110

Phe Pro Val Gly Ser Val Val Glu Tyr Glu Cys Arg Pro Gly Tyr Gln 115 120 125

Arg Asp His Leu Leu Ser Gly Lys Leu Thr Cys Leu Leu Asn Phe Thr 130 135 140

Trp Ser Lys Pro Asp Glu Phe Cys Lys Arg Lys Ser Cys Pro Asn Pro 145 150 155 160

Gly Asp Leu Arg His Gly His Val Asn Ile Pro Thr Asp Ile Leu Tyr 165 170 175

Ala Ala Val Ile His Phe Ser Cys Asn Lys Gly Tyr Arg Leu Val Gly
180 185 190

Ala Ala Ser Ser Tyr Cys Ser Ile Val Asn Asp Asp Val Gly Trp Ser 195 200 205

Asp Pro Leu Pro Glu Cys Gln Glu Ile Phe Cys Pro Glu Pro Pro Lys 210 225 220

Ile Ser Asn Gly Val Ile Leu Asp Gln Gln Asn Thr Tyr Val Tyr Gln225230235240

Gln Ala Val Lys Tyr Glu Cys Ile Lys Gly Phe Thr Leu Ile Gly Glu 245 250 255

Asn Ser Asp Leu Leu Tyr Cys 260

<210> 2214

<211> 55

<212> PRT

<213> Homo sapiens

<400> 2214

Met Cys Leu Leu Gly Gly Leu Ser Ala Pro Pro Leu Leu Leu Pro 1 5 10 15

Leu Leu Pro Leu Leu Cys Pro Pro Thr Gly Arg Val Thr Ala Ala
20 25 30

Phe Pro Gln Ser Tyr Leu Met Pro Tyr Lys Val Trp Val Thr Asn Arg 35 40 45

Val Phe Leu Lys Asn Ser Gln 50 55

<210> 2215

<211> 350

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2215

Met Ala Xaa Xaa Val Val Leu Leu Ala Leu Val Ala Gly Val Leu Gly
1 10 15

Asn Glu Phe Ser Ile Leu Lys Ser Pro Gly Ser Val Val Phe Arg Asn 20 25 30

Gly Asn Trp Pro Ile Pro Gly Glu Arg Ile Pro Asp Val Ala Ala Leu 35 40 45

Ser Met Gly Phe Ser Val Lys Glu Asp Leu Ser Trp Pro Gly Leu Ala 50 55 60

Val Gly Asn Leu Phe His Arg Pro Arg Ala Thr Val Met Val 65 70 75 80

Lys Gly Val Asn Lys Leu Ala Leu Pro Pro Gly Ser Val Ile Ser Tyr 85 90 95

Pro Leu Glu Asn Ala Val Pro Phe Ser Leu Asp Ser Val Ala Asn Ser 100 105 110

Ile His Ser Leu Phe Ser Glu Glu Thr Pro Val Val Leu Gln Leu Ala 115 120 125

Pro Ser Glu Glu Arg Val Tyr Met Val Gly Lys Ala Asn Ser Val Phe 130 135 140

Glu Asp Leu Ser Val Thr Leu Arg Gln Leu Arg Asn Arg Leu Phe Gln 145 150 155 160

Glu Asn Ser Val Leu Ser Ser Leu Pro Leu Asn Ser Leu Ser Arg Asn 165 170 175

Asn Glu Val Asp Leu Leu Phe Leu Ser Glu Leu Gln Val Leu His Asp 180 185 190

Ile Ser Ser Leu Leu Ser Arg His Lys His Leu Ala Lys Asp His Ser 195 200 205

Pro Asp Leu Tyr Ser Leu Glu Leu Ala Gly Leu Asp Glu Ile Gly Lys 210 225 220

Arg Tyr Gly Glu Asp Ser Glu Gln Phe Arg Asp Ala Ser Lys Ile Leu 225 230 235 240

Val Asp Ala Leu Gln Lys Phe Ala Asp Asp Met Tyr Ser Leu Tyr Gly 245 250 255

Gly Asn Ala Val Val Glu Leu Val Thr Val Lys Ser Phe Asp Thr Ser 260 265 270

Leu Ile Arg Lys Thr Arg Thr Ile Leu Glu Ala Lys Gln Ala Lys Asn $275 \hspace{1.5cm} 280 \hspace{1.5cm} 285$

Pro Ala Ser Pro Tyr Asn Leu Ala Tyr Lys Tyr Asn Phe Glu Tyr Ser 290 295 300

Val Val Phe Asn Met Val Leu Trp Ile Met Ile Ala Leu Ala Leu Ala 305 310 315 320

Val Ile Ile Thr Ser Tyr Asn Ile Trp Asn Met Asp Pro Gly Tyr Asp 325 330 335

Ser Ile Ile Tyr Arg Met Thr Asn Gln Lys Ile Arg Met Asp 340 345 350

<210> 2216

<211> 350

<212> PRT

<213> Homo sapiens

<400> 2216

Met Ala Val Phe Val Val Leu Leu Ala Leu Val Ala Gly Val Leu Gly

1				5					10					15	
Asn	Glu	Phe	Ser 20	Ile	Leu	Lys	Ser	Pro 25	Gly	Ser	Val	Val	Phe 30	Arg	Asn
Gly	Asn	Trp 35	Pro	Ile	Pro	Gly	Glu 40	Arg	Ile	Pro	Asp	Val 45	Ala	Ala	Leu
Ser	Met 50	Gly	Phe	Ser	Val	Lys 55	Glu	Asp	Leu	Ser	Trp 60	Pro	Gly	Leu	Ala
Val 65	Gly	Asn	Leu	Phe	His 70	Arg	Pro	Arg	Ala	Thr 75	Val	Met	Val	Met	Val 80
Lys	Gly	Val	Asn	Lys 85	Leu	Ala	Leu	Pro	Pro 90	Gly	Ser	Val	Ile	Ser 95	Tyr
Pro	Leu	Glu	Asn 100	Ala	Val	Pro	Phe	Ser 105	Leu	Asp	Ser	Val	Ala 110	Asn	Ser
Ile	His	Ser 115	Leu	Phe	Ser	Glu	Glu 120	Thr	Pro	Val	Val	Leu 125	Gln	Leu	Ala
Pro	Ser 130	Glu	Glu	Arg	Val	Tyr 135	Met	Val	Gly	Lys	Ala 140	Asn	Ser	Val	Phe
Glu 145	Asp	Leu	Ser	Val	Thr 150	Leu	Arg	Gln	Leu	Arg 155	Asn	Arg	Leu	Phe	Gln 160
Glu	Asn	Ser	Val	Leu 165		Ser	Leu	Pro	Leu 170	Asn	Ser	Leu	Ser	Arg 175	Asn
			180				Leu	185					190		
		195					His 200					205			
	210					215					220				
Arg 225		Gly	Glu	Asp	Ser 230		Gln	Phe	Arg	Asp 235		Ser	Lys	Ile	Leu 240
				245			Ala		250					255	
			260				. Val	265					270		
		275					1le 280					285		-	
	290					295					300)			
305					310	•	Trp			315	•				320
Val	Ile	Ile	Thr	Ser	Tyr	Asn	ılle	Trp	Asn	Met	Asp	Pro	Gly	Tyr	Asp

325 330 335

Ser Ile Ile Tyr Arg Met Thr Asn Gln Lys Ile Arg Met Asp 340 345 350

<210> 2217

<211> 167

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2217

Met Cys Ser Leu Phe His Ala Phe Ile Phe Ala Gln Leu Trp Thr Val 1 5 10 15

Tyr Cys Glu Gln Ser Ala Val Ala Thr Asn Leu Gln Asn Gln Asn Glu 20 25 30

Phe Ser Phe Thr Ala Ile Leu Thr Ala Leu Glu Phe Trp Ser Arg Val\$35\$ 40 45

Thr Pro Ser Ile Leu Gln Leu Met Ala His Asn Lys Xaa Met Val Glu 50 60

Met Val Cys Leu His Val Ile Ser Leu Met Glu Ala Leu Gln Xaa Cys 65 70 75 80

Asn Ser Thr Ile Phe Val Lys Leu Ile Pro Met Trp Leu Pro Met Ile 85 90 95

Gln Ser Asn Ile Lys His Leu Ser Ala Gly Leu Gln Leu Arg Leu Gln
100 105 110

Ala Ile Gln Asn His Val Asn His His Ser Leu Arg Thr Leu Pro Gly
115 120 125

Ser Gly Gln Ser Ser Ala Gly Leu Ala Ala Leu Arg Lys Trp Leu Gln 130 135 140

Cys Thr Gln Phe Lys Met Ala Gln Val Glu Ile Gln Ser Ser Glu Ala 145 150 155 160

Ala Ser Gln Phe Tyr Pro Leu 165

<210> 2218

-:211> 110

<212> PRT

<213> Homo sapiens

<400> 2218

Met Glu Phe Pro Gly Ala Asp Gly Cys Asn Gln Val Asp Ala Glu Tyr

1 5 10 15

Leu Lys Val Gly Ser Glu Gly His Phe Arg Val Pro Ala Leu Gly Tyr 20 25 30

Leu Asp Val Arg Ile Val Asp Thr Asp Tyr Ser Ser Phe Ala Val Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Tyr Ile Tyr Lys Glu Leu Glu Gly Ala Leu Ser Thr Met Val Gln Leu 50 55 60

Tyr Ser Arg Thr Gln Asp Val Ser Pro Gln Ala Leu Lys Ala Phe Gln 65 70 75 80

Asp Phe Tyr Pro Thr Leu Gly Leu Pro Glu Asp Met Met Val Met Leu 85 90 95

Pro Gln Ser Asp Ala Cys Asn Pro Glu Ser Lys Glu Ala Pro 100 105 110

<210> 2219

<211> 115

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (101)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2219

Ile Ser Leu Leu Trp Asn Leu Trp Gln Ser Val Lys Ile Gly Cys Gly
1 5 10 15

Glu Lys Leu Tyr Pro Gly His Thr Lys Asp Ser Arg Asn His Leu Gly 20 25 30

Gln Asn Leu Ser Phe Leu His Phe Ile Tyr Leu Phe Pro Pro Pro His
35 40 45

Ser Thr His Thr Leu Pro Thr Ser Ser Thr Ser Thr Phe Lys His Lys 50 55 60

Asp Val Arg Val Phe Ser Leu Ser Val Ser Trp Arg Thr Gly Cys Trp 65 70 75 80

Glu Arg Lys Gly Gln Met Ser Lys Gly Gly Cys Arg Ala Gly Gln Ala 85 90 95

Asp Ser Gly Gly Kaa Leu Glu Glu Leu Xaa Pro Ser Gln Thr Trp Val

Ser Lys Thr 115

<210> 2220

<211> 262

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (254)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2220

Met Glu Cys Cys Arg Arg Ala Thr Pro Gly Thr Leu Leu Phe Leu
1 5 10 15

Ala Phe Leu Leu Ser Ser Arg Thr Ala Arg Ser Glu Glu Asp Arg 20 25 30

Asp Gly Leu Trp Asp Ala Trp Gly Pro Trp Ser Glu Cys Ser Arg Thr 35 40 45

Cys Gly Gly Gly Ala Ser Tyr Ser Leu Arg Arg Cys Leu Ser Ser Lys 50 55 60

Ser Cys Glu Gly Arg Asn Ile Arg Tyr Arg Thr Cys Ser Asn Val Asp 65 70 75 80

Cys Pro Pro Glu Ala Gly Asp Phe Arg Ala Gln Gln Cys Ser Ala His 85 90 95

Asn Asp Pro Asp Asn Pro Cys Ser Leu Lys Cys Gln Ala Lys Gly Thr

Thr Leu Val Val Glu Leu Ala Pro Lys Val Leu Asp Gly Thr Arg Cys 130 135 140

Tyr Thr Glu Ser Leu Asp Met Cys Ile Ser Gly Leu Cys Gln Ile Val 145 150 155 160

Gly Cys Asp His Gln Leu Gly Ser Thr Val Lys Glu Asp Asn Cys Gly
165 170 175

Val Cys Asn Gly Asp Gly Ser Thr Cys Arg Leu Val Arg Gly Gln Tyr 180 185 190

Lys Ser Gln Leu Ser Ala Thr Lys Ser Asp Asp Thr Val Val Ala Ile 195 200 205

Pro Tyr Gly Ser Arg His Ile Arg Leu Val Leu Lys Gly Pro Asp His

210 215 220

Leu Tyr Leu Glu Thr Lys Thr Leu Gln Gly Thr Lys Gly Glu Asn Ser 225 230 235 240

Leu Ser Ser Thr Gly Thr Phe Leu Val Asp Asn Ser Ser Xaa Thr Ser 245 250 255

Arg Asn Phe Gln Thr Lys 260

<210> 2221

<211> 514

<212> PRT

<213> Homo sapiens

<400> 2221

Glu Leu Cys Arg Gln Pro Lys Pro Ser Thr Val Gln Ala Cys Asn Arg 1 5 10 15

Phe Asn Cys Pro Pro Ala Trp Tyr Pro Ala Gln Trp Gln Pro Cys Ser 20 25 30

Arg Thr Cys Gly Gly Gly Val Gln Lys Arg Glu Val Leu Cys Lys Gln 35 40 45

Arg Met Ala Asp Gly Ser Phe Leu Glu Leu Pro Glu Thr Phe Cys Ser 50 55 60

Ala Ser Lys Pro Ala Cys Gln Gln Ala Cys Lys Lys Asp Asp Cys Pro 65 70 75 80

Ser Glu Trp Leu Leu Ser Asp Trp Thr Glu Cys Ser Thr Ser Cys Gly
85 90 95

Glu Gly Thr Gln Thr Arg Ser Ala Ile Cys Arg Lys Met Leu Lys Thr 100 105 110

Gly Leu Ser Thr Val Val Asn Ser Thr Leu Cys Pro Pro Leu Pro Phe 115 120 125

Ser Ser Ser Ile Arg Pro Cys Met Leu Ala Thr Cys Ala Arg Pro Gly 130 135 140

Arg Pro Ser Thr Lys His Ser Pro His Ile Ala Ala Ala Arg Lys Val 145 150 155 160

Tyr Ile Gln Thr Arg Arg Gln Arg Lys Leu His Phe Val Val Gly Gly
165 170 175

Phe Ala Tyr Leu Leu Pro Lys Thr Ala Val Val Leu Arg Cys Pro Ala 180 185 190

Arg Arg Val Arg Lys Pro Leu Ile Thr Trp Glu Lys Asp Gly Gln His 195 200 205

Leu Ile Ser Ser Thr His Val Thr Val Ala Pro Phe Gly Tyr Leu Lys 210 215 220

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Ile 225	His	Arg	Leu	Lys	Pro 230	Ser	Asp	Ala	Gly	Val 235	Тут	Thr	Cys	Ser	Ala 240
Gly	Pro	Ala	Arg	Glu 245	His	Phe	Val	Ile	Lys 250	Leu	Ile	Gly	Gly	Asn 255	Arg
Lys	Leu	Val	Ala 260	Arg	Pro	Leu	Ser	Pro 265	Arg	Ser	Glu	Glu	Glu 270	Val	Leu
Ala	Gly	Arg 275	Lys	Gly	Gly	Pro	Lys 280	Glu	Ala	Leu	Gln	Thr 285	His	Lys	His
Gln	Asn 290	Gly	Ile	Phe	Ser	Asn 295	Gly	Ser	Lys	Ala	Glu 300	Lys	Arg	Gly	Leu
Ala 305	Ala	Asn	Pro	Gly	Ser 310	Arg	Tyr	Asp	Asp	Leu 315	Val	Ser	Arg	Leu	Leu 320
Glu	Gln	Gly	Gly	Trp 325	Pro	Gly	Glu	Leu	Leu 330	Ala	Ser	Trp	Glu	Ala 335	Gln
Asp	Ser	Ala	Glu 340	Arg	Asn	Thr	Thr	Ser 345	Glu	Glu	Asp	Pro	Gly 350	Ala	Glu
Gln	Val	Leu 355	Leu	His	Leu	Pro	Phe 360	Thr	Met	Val	Thr	Glu 365	Gln	Arg	Arg
Leu	Asp 370	Asp	Ile	Leu	Gly	Asn 375	Leu	Ser	Gln	Gln	Pro 380	Glu	Glu	Leu	Arg
Asp 385	Leu	Tyr	Ser	Lys	His 390	Leu	Val	Ala	Gln	Leu 395	Ala	Gln	Glu	Ile	Phe 400
Arg	Ser	His	Leu	Glu 405	His	Gln	Asp	Thr	Leu 410		Lys	Pro	Ser	Glu 415	
Arg	Thr	Ser	Pro 420		Thr	Leu	Ser	Pro 425		Lys	His	Val	Ser 430		Phe
Ser	Ser	Ser 435		Arg	Thr	Ser	Ser 440		Gly	Asp	Ala	Gly 445		Gly	Ser
Arg	Arg 450		His	Arg	Lys	Pro 4 55	Thr	Ile	e Leu	Arg	Lys 460		Ser	Ala	Ala
Gln 465		Leu	Ser	Ala	Ser 470		Val	Val	Thr	His 475		Gly	Gln	Thr	Val 480
Ala	Leu	Ala	Ser	Gly 485		Leu	Ser	Val	. Phe 490		Thr	· Val	. Arg	Pro 495	
Ala	Thr	Gln	Gly 500		Pro	Ser	Ala	Gly 505		Gly	Met	: Glu	: Lys 510		: Ser
Val	Gln			,											

<210> 2222

<211> 1745

<212> PRT

<213> Homo sapiens

<400> 2222

Met Glu Cys Cys Arg Arg Ala Thr Pro Gly Thr Leu Leu Leu Phe Leu 1 5 10 15

Ala Phe Leu Leu Ser Ser Arg Thr Ala Arg Ser Glu Glu Asp Arg 20 25 30

Asp Gly Leu Trp Asp Ala Trp Gly Pro Trp Ser Glu Cys Ser Arg Thr 35 40 45

Cys Gly Gly Ala Ser Tyr Ser Leu Arg Arg Cys Leu Ser Ser Lys 50 55.

Ser Cys Glu Gly Arg Asn Ile Arg Tyr Arg Thr Cys Ser Asn Val Asp 65 70 75 80

Cys Pro Pro Glu Ala Gly Asp Phe Arg Ala Gln Gln Cys Ser Ala His $85 \hspace{1cm} 90 \hspace{1cm} 95$

Asn Asp Val Lys His His Gly Gln Phe Tyr Glu Trp Leu Pro Val Ser 100 105 110

Asn Asp Pro Asp Asn Pro Cys Ser Leu Lys Cys Gln Ala Lys Gly Thr 115 120 125

Thr Leu Val Val Glu Leu Ala Pro Lys Val Leu Asp Gly Thr Arg Cys 130 135 140

Tyr Thr Glu Ser Leu Asp Met Cys Ile Ser Gly Leu Cys Gln Ile Val 145 150 155 160

Gly Cys Asp His Gln Leu Gly Ser Thr Val Lys Glu Asp Asn Cys Gly
165 170 175

Val Cys Asn Gly Asp Gly Ser Thr Cys Arg Leu Val Arg Gly Gln Tyr 180 185 190

Lys Ser Gln Leu Ser Ala Thr Lys Ser Asp Asp Thr Val Val Ala Ile 195 200 205

Pro Tyr Gly Ser Arg His Ile Arg Leu Val Leu Lys Gly Pro Asp His 210 215 220

Leu Tyr Leu Glu Thr Lys Thr Leu Gln Gly Thr Lys Gly Glu Asn Ser 225 230 235 240

Leu Ser Ser Thr Gly Thr Phe Leu Val Asp Asn Ser Ser Val Asp Phe 245 250 255

Gln Lys Phe Pro Asp Lys Glu Ile Leu Arg Met Ala Gly Pro Leu Thr 260 265 270

Ala Asp Phe Ile Val Lys Ile Arg Asn Ser Gly Ser Ala Asp Ser Thr 275 280 285

Val Gin Phe Ile Phe Tyr Gln Pro Ile Ile His Arg Trp Arg Glu Thr 295 Asp Phe Phe Pro Cys Ser Ala Thr Cys Gly Gly Gly Tyr Gln Leu Thr 310 315 Ser Ala Glu Cys Tyr Asp Leu Arg Ser Asn Arg Val Val Ala Asp Gln 325 330 Tyr Cys His Tyr Tyr Pro Glu Asn Ile Lys Pro Lys Pro Lys Leu Gln 345 Glu Cys Asn Leu Asp Pro Cys Pro Ala Arg Trp Glu Ala Thr Pro Trp Thr Ala Cys Ser Ser Ser Cys Gly Gly Gly Ile Gln Ser Arg Ala Val 375 Ser Cys Val Glu Glu Asp Ile Gln Gly His Val Thr Ser Val Glu Glu 390 395 Trp Lys Cys Met Tyr Thr Pro Lys Met Pro Ile Ala Gln Pro Cys Asn 410 Ile Phe Asp Cys Pro Lys Trp Leu Ala Gln Glu Trp Ser Pro Cys Thr Val Thr Cys Gly Gln Gly Leu Arg Tyr Arg Val Val Leu Cys Ile Asp His Arg Gly Met His Thr Gly Gly Cys Ser Pro Lys Thr Lys Pro His 455 Ile Lys Glu Glu Cys Ile Val Pro Thr Pro Cys Tyr Lys Pro Lys Glu 470 Lys Leu Pro Val Glu Ala Lys Leu Pro Trp Phe Lys Gln Ala Gln Glu 490 Leu Glu Glu Gly Ala Ala Val Ser Glu Glu Pro Ser Phe Ile Pro Lys 505 Ala Trp Ser Ala Cys Thr Val Thr Cys Gly Val Gly Thr Gln Val Arg 520 515 Ile Val Arg Cys Gln Val Leu Leu Ser Phe Ser Gln Ser Val Ala Asp 535 540 Leu Pro Ile Asp Glu Cys Glu Gly Pro Lys Pro Ala Ser Gln Arg Ala 545 550 Cys Tyr Ala Gly Pro Cys Ser Gly Glu Ile Pro Glu Phe Asn Pro Asp 570 Glu Thr Asp Gly Leu Phe Gly Gly Leu Gln Asp Phe Asp Glu Leu Tyr Asp Trp Glu Tyr Glu Gly Phe Thr Lys Cys Ser Glu Ser Cys Gly Gly 600

Gly Val Gln Glu Ala Val Val Ser Cys Leu Asn Lys Gln Thr Arg Glu 615 Pro Ala Glu Glu Asn Leu Cys Val Thr Ser Arg Arg Pro Pro Gln Leu 630 635 Leu Lys Ser Cys Asn Leu Asp Pro Cys Pro Ala Arg Trp Glu Ile Gly Lys Trp Ser Pro Cys Ser Leu Thr Cys Gly Val Gly Leu Gln Thr Arg Asp Val Phe Cys Ser His Leu Leu Ser Arg Glu Met Asn Glu Thr Val 680 Ile Leu Ala Asp Glu Leu Cys Arg Gln Pro Lys Pro Ser Thr Val Gln 695 Ala Cys Asn Arg Phe Asn Cys Pro Pro Ala Trp Tyr Pro Ala Gln Trp 710 715 Gln Pro Cys Ser Arg Thr Cys Gly Gly Gly Val Gln Lys Arg Glu Val Leu Cys Lys Gln Arg Met Ala Asp Gly Ser Phe Leu Glu Leu Pro Glu Thr Phe Cys Ser Ala Ser Lys Pro Ala Cys Gln Gln Ala Cys Lys Lys 760 Asp Asp Cys Pro Ser Glu Trp Leu Leu Ser Asp Trp Thr Glu Cys Ser 775 Thr Ser Cys Gly Glu Gly Thr Gln Thr Arg Ser Ala Ile Cys Arg Lys 790 Met Leu Lys Thr Gly Leu Ser Thr Val Val Asn Ser Thr Leu Cys Pro Pro Leu Pro Phe Ser Ser Ser Ile Arg Pro Cys Met Leu Ala Thr Cys 825 Ala Arg Pro Gly Arg Pro Ser Thr Lys His Ser Pro His Ile Ala Ala 840 Ala Arg Lys Val Tyr Ile Gln Thr Arg Arg Gln Arg Lys Leu His Phe 855 Val Val Gly Gly Phe Ala Tyr Leu Leu Pro Lys Thr Ala Val Val Leu 870 . 865 Arg Cys Pro Ala Arg Arg Val Arg Lys Pro Leu Ile Thr Trp Glu Lys Asp Gly Gln His Leu Ile Ser Ser Thr His Val Thr Val Ala Pro Phe 905 Gly Tyr Leu Lys Ile His Arg Leu Lys Pro Ser Asp Ala Gly Val Tyr 915 920

Thr Cys Ser Ala Gly Pro Ala Arg Glu His Phe Val Ile Lys Leu Ile 930 935 940

- Gly Gly Asn Arg Lys Leu Val Ala Arg Pro Leu Ser Pro Arg Ser Glu 945 950 955 960
- Glu Glu Val Leu Ala Gly Arg Lys Gly Gly Pro Lys Glu Ala Leu Gln 965 970 975
- Thr His Lys His Gln Asn Gly Ile Phe Ser Asn Gly Ser Lys Ala Glu 980 985 990
- Lys Arg Gly Leu Ala Ala Asn Pro Gly Ser Arg Tyr Asp Asp Leu Val 995 1000 1005
- Ser Arg Leu Leu Glu Gln Gly Gly Trp Pro Gly Glu Leu Leu Ala Ser 1010 1015 1020
- Trp Glu Ala Gln Asp Ser Ala Glu Arg Asn Thr Thr Ser Glu Glu Asp 1025 1030 1035 1040
- Pro Gly Ala Glu Gln Val Leu Leu His Leu Pro Phe Thr Met Val Thr 1045 1050 1055
- Glu Gln Arg Arg Leu Asp Asp Ile Leu Gly Asn Leu Ser Gln Gln Pro 1060 1065 1070
- Glu Glu Leu Arg Asp Leu Tyr Ser Lys His Leu Val Ala Gln Leu Ala 1075 1080 1085
- Pro Ser Glu Arg Arg Thr Ser Pro Val Thr Leu Ser Pro His Lys His 1105 1110 1115 1120
- Val Ser Gly Phe Ser Ser Ser Leu Arg Thr Ser Ser Thr Gly Asp Ala 1125 1130 1135
- Gly Gly Ser Arg Arg Pro His Arg Lys Pro Thr Ile Leu Arg Lys 1140 1145 1150
- Ile Ser Ala Ala Gln Gln Leu Ser Ala Ser Glu Val Val Thr His Leu 1155 1160 1165
- Gly Gln Thr Val Ala Leu Ala Ser Gly Thr Leu Ser Val Leu Leu His 1170 1180
- Cys Glu Ala Ile Gly His Pro Arg Pro Thr Ile Ser Trp Ala Arg Asn 1185 1190 1195 1200
- Gly Glu Glu Val Gln Phe Ser Asp Arg Ile Leu Leu Gln Pro Asp Asp 1205 1210 1215
- Ser Leu Gln Ile Leu Ala Pro Val Glu Ala Asp Val Gly Phe Tyr Thr 1220 1225 1230
- Cys Asn Ala Thr Asn Ala Leu Gly Tyr Asp Ser Val Ser Ile Ala Val 1235 1240 1245

Thr Leu Ala Gly Lys Pro Leu Val Lys Thr Ser Arg Met Thr Val Ile 1250 1255 1260

- Asn Thr Glu Lys Pro Ala Val Thr Val Asp Ile Gly Ser Thr Ile Lys 1265 1270 1275 1280
- Thr Val Gln Gly Val Asn Val Thr Ile Asn Cys Gln Val Ala Gly Val 1285 1290 1295
- Pro Glu Ala Glu Val Thr Trp Phe Arg Asn Lys Ser Lys Leu Gly Ser 1300 1305 1310
- Pro His His Leu His Glu Gly Ser Leu Leu Leu Thr Asn Val Ser Ser 1315 1320 1325
- Ser Asp Gln Gly Leu Tyr Ser Cys Arg Ala Ala Asn Leu His Gly Glu 1330 1340
- Leu Thr Glu Ser Thr Gln Leu Leu Ile Leu Asp Pro Pro Gln Val Pro 1345 1350 1355 1360
- Thr Gln Leu Glu Asp $\,$ Ile Arg Ala Leu Leu Ala Ala Thr Gly Pro $\,$ Asn $\,$ 1365 $\,$ 1370 $\,$ 1375 $\,$
- Leu Pro Ser Val Leu Thr Ser Pro Leu Gly Thr Gln Leu Val Leu Asp 1380 1385 1390
- Pro Gly Asn Ser Ala Leu Leu Gly Cys Pro Ile Lys Gly His Pro Val 1395 1400 1405
- Pro Asn Ile Thr Trp Phe His Gly Gly Gln Pro Ile Val Thr Ala Thr 1410 1415 1420
- Gly Leu Thr His His Ile Leu Ala Ala Gly Gln Ile Leu Gln Val Ala 1425 1430 1435 1440
- Asn Leu Ser Gly Gly Ser Gln Gly Glu Phe Ser Cys Leu Ala Gln Asn 1445 1450 1455
- Glu Ala Gly Val Leu Met Gln Lys Ala Ser Leu Val Ile Gln Asp Tyr 1460 1465 1470
- Trp Trp Ser Val Asp Arg Leu Ala Thr Cys Ser Ala Ser Cys Gly Asn 1475 1480 1485
- Arg Gly Val Gln Gln Pro Arg Leu Arg Cys Leu Leu Asn Ser Thr Glu 1490 1495 1500
- Val Asn Pro Ala His Cys Ala Gly Lys Val Arg Pro Ala Val Gln Pro 1505 1510 1515 1520
- Ile Ala Cys Asn Arg Arg Asp Cys Pro Ser Arg Trp Met Val Thr Ser 1525 1530 1535
- Trp Ser Ala Cys Thr Arg Ser Cys Gly Gly Gly Val Gln Thr Arg Arg
- Val Thr Cys Gln Lys Leu Lys Ala Ser Gly Ile Ser Thr Pro Val Ser 1555 1560 : 1565

Ash Asp Met Cys Thr Gln Val Ala Lys Arg Pro Val Asp Thr Gln Ala 1570 1580

Cys Asn Gln Gln Leu Cys Val Glu Trp Ala Phe Ser Ser Trp Gly Gln 1585 1590 1595 1600

Cys Asn Gly Pro Cys $\,$ Ile Gly Pro His Leu $\,$ Ala Val Gln His Arg $\,$ Gln $\,$ 1615 $\,$

Val Phe Cys Gln Thr Arg Asp Gly Ile Thr Leu Pro Ser Glu Gln Cys 1620 1625 1630

Ser Ala Leu Pro Arg Pro Val Ser Thr Gln Asn Cys Trp Ser Glu Ala 1635 1640 1645

Cys Ser Val His Trp Arg Val Ser Leu Trp Thr Leu Cys Thr Ala Thr 1650 1660

Cys Gly Asn Tyr Gly Phe Gln Ser Arg Arg Val Glu Cys Val His Ala 1665 1670 1680

Arg Thr Asn Lys Ala Val Pro Glu His Leu Cys Ser Trp Gly Pro Arg 1685 1690 1695

Pro Ala Asn Trp Gln Arg Cys Asn Ile Thr Pro Cys Glu Asn Met Glu 1700 1705 1710

Cys Arg Asp Thr Thr Arg Tyr Cys Glu Lys Val Lys Gln Leu Lys Leu 1715 1720 1725

Cys Gln Leu Ser Gln Phe Lys Ser Arg Cys Cys Gly Thr Cys Gly Lys 1730 1735 1740

Ala 1745

<210> 2223

<211> 19

<212> PRT

<213> Homo sapiens

<400> 2223

Glu Cys Cys Glu Thr Ala Ala Pro Pro Gly Pro His Arg Arg Pro Glu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ser Gly Gln

<210> 2224

<211> 363

<212> PRT

<213> Homo sapiens

<400> 2224

Ala Thr Gln Ala Arg Lys Gly Phe Trp Asp Tyr Phe Ser Gln Thr Ser Gly Asp Lys Gly Arg Val Glu Gln Ile His Gln Gln Lys Met Ala Arg Glu Pro Ala Thr Leu Lys Asp Ser Leu Glu Gln Asp Leu Asn Asn Met Asn Lys Phe Leu Glu Lys Leu Arg Pro Leu Ser Gly Ser Glu Ala Pro Arg Leu Pro Gln Asp Pro Val Gly Met Arg Arg Gln Leu Gln Glu Glu Leu Glu Glu Val Lys Ala Arg Leu Gln Pro Tyr Met Ala Glu Ala His 105 Glu Leu Val Gly Trp Asn Leu Glu Gly Leu Arg Gln Gln Leu Lys Pro 120 Tyr Thr Met Asp Leu Met Glu Gln Val Ala Leu Arg Val Gln Glu Leu 135 Gln Glu Gln Leu Arg Val Val Gly Glu Asp Thr Lys Ala Gln Leu Leu 150 155 Gly Gly Val Asp Glu Ala Trp Ala Leu Leu Gln Gly Leu Gln Ser Arg Val Val His His Thr Gly Arg Phe Lys Glu Leu Phe His Pro Tyr Ala 185 Glu Ser Leu Val Ser Gly Ile Gly Arg His Val Gln Glu Leu His Arg 195 200 Ser Val Ala Pro His Ala Pro Ala Ser Pro Ala Arg Leu Ser Arg Cys Val Gln Val Leu Ser Arg Lys Leu Thr Leu Lys Ala Lys Ala Leu His 225 Ala Arg Ile Gln Gln Asn Leu Asp Gln Leu Arg Glu Glu Leu Ile Arg 245 250 Ala Phe Ala Gly Thr Gly Thr Glu Glu Gly Ala Gly Pro Asp Pro Gln Met Leu Ser Glu Glu Val Arg Gln Arg Leu Gln Ala Phe Arg Gln Asp 280 Thr Tyr Leu Gln Ile Ala Ala Phe Thr Arg Ala Ile Asp Gln Glu Thr 290 295 Glu Glu Val Gln Gln Leu Ala Pro Pro Pro Gly His Ser Ala Phe Ala Pro Glu Phe Gln Gln Thr Asp Ser Gly Lys Val Leu Ser Lys 330

Leu Gln Ala Arg Leu Asp Asp Leu Trp Glu Asp Ile Thr His Ser Leu 340 345 350

His Asp Gln Gly His Ser His Leu Gly Asp Pro 355 360

<210> 2225

<211> 183

<212> PRT

<213> Homo sapiens

<220>

<001> SITE

<222> (86)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (146)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2225

Met Ala Val Gly Lys Phe Leu Leu Gly Ser Leu Leu Leu Leu Ser Leu 1 5 10 15

Gln Leu Gly Gln Gly Trp Gly Pro Asp Ala Arg Gly Val Pro Val Ala 20 $\cdot\cdot$ 25 30

Asp Gly Glu Phe Ser Ser Glu Gln Val Ala Lys Ala Gly Gly Thr Trp 35 40 45

Leu Gly Lys Asp Phe Gln Gly Pro Ser Val Thr Ser Gln Leu Ser Pro 50 60

Ala Leu Thr Leu Leu Thr Val Ser Ala Leu Pro Ser His Arg His Pro 65 70 75 80

Pro Pro Pro Cys Pro Xaa Ala Pro Ser Pro Val Trp Ser Met Pro Ala 85 90 95

Val Glu Pro Asp Pro Val Arg Gly Arg Ala Arg Pro Gly Leu Arg Leu 100 105 110

Ile Gly Glu Val Ile Phe Arg Tyr Cys Ala Gly Ser Cys Pro Arg Gly 115 120 125

Ala Arg Thr Gln His Gly Leu Ala Leu Ala Arg Leu Gln Gly Gln Gly 130 140

Arg Xaa His Gly Gly Pro Cys Cys Arg Pro Thr Arg Tyr Thr Asp Val 145 150 155 160

Ala Phe Leu Asp Asp Arg His Ala Gly Ser Gly Cys Pro Ser Ser Arg 165 170 175

Arg Leu Cys Gly Cys Gly Gly 180

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<210> 2226
<211> 252
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (116)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (135)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (146)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 2226
Met Ala Val Gly Lys Phe Leu Leu Gly Ser Leu Leu Leu Ser Leu
Gln Leu Gly Gln Gly Trp Gly Pro Asp Ala Arg Gly Val Pro Val Ala
                                25
Asp Gly Glu Phe Ser Ser Glu Gln Val Ala Lys Ala Gly Gly Thr Trp
                             40
Leu Gly Lys Asp Phe Gln Gly Pro Ser Val Thr Ser Gln Leu Ser Pro
     50
                        55
Ala Leu Thr Leu Leu Thr Val Ser Ala Leu Pro Ser His Arg His Pro
Pro Pro Cys Pro Xaa Ala Pro Ser Pro Val Trp Ser Met Pro Ala
                85
                                    90
Val Glu Pro Asp Pro Val Arg Gly Arg Ala Arg Pro Gly Leu Arg Leu
                               105
Ile Gly Glu Xaa His Leu Pro Leu Leu Arg Arg Gln Leu Pro Pro Trp
                    120
Cys Pro His Pro Ala Trp Xaa Gly Ala Gly Pro Ala Ala Gly Pro Gly
Pro Xaa Pro Arg Arg Ala Leu Leu Pro Ala His Ser Leu His Arg Arg
                   150
                                       155
Gly Leu Pro Arg Arg Pro Pro Arg Trp Gln Arg Leu Pro Gln Leu Ser
```

165 170 175

Ala Ala Leu Arg Leu Trp Trp Leu Arg Val Pro Gly Leu Ala Pro Arg 180 185 190

Ser Cys Ser Ala Gly Gly Ala Arg Leu Thr Tyr Leu Leu Glu Thr Trp 195 200 205

Met Gln Arg Gln Arg Gly Gly Glu Trp Ala Gly Ala Thr Ser Ser Glu 210 215 220

Cys Asn Lys Gly His His Ser Pro Gly Lys Lys Lys Lys Lys Lys Lys 235 240

Lys Lys Lys Lys Leu Glu Gly Gly Ser Arg Tyr \$245\$

<210> 2227

<211> 150

<212> PRT -

<213> Homo sapiens

<400> 2227

Met Val Met Ile Leu Phe Val Ala Phe Ile Thr Cys Trp Glu Glu Val 1 5 10 15

Thr Thr Leu Val Gln Ala Ile Arg Ile Thr Ser Tyr Met Asn Glu Thr 20 25 30

Ile Leu Tyr Phe Pro Phe Ser Ser His Ser Ser Tyr Thr Val Arg Ser 35 40 45

Lys Lys Ile Phe Leu Ser Lys Leu Ile Val Cys Phe Leu Ser Thr Trp $$50\$

Leu Pro Phe Val Leu Leu Gln Val Ile Ile Val Leu Leu Lys Val Gln 65 70 75 80

Ile Pro Ala Tyr Ile Glu Met Asn Ile Pro Trp Leu Tyr Phe Val Asn 85 90 95

Ser Phe Leu Ile Ala Thr Val Tyr Trp Phe Asn Cys His Lys Leu Asn 100 105 110

Leu Lys Asp Ile Gly Leu Pro Leu Asp Pro Phe Val Asn Trp Lys Cys \$115\$ \$120\$ \$125\$

Cys Phe Ile Pro Leu Thr Ile Pro Asn Leu Glu Gln Ile Glu Lys Pro 130 135 140

Ile Ser Ile Met Ile Cys 145 150

<210> 2228

<311> 125

<212> FRT

<213> Homo sapiens

<400> 2228

Met Ile Pro Phe Pro Ala Cys Leu Leu Leu Ala Leu Phe Pro Lys Val 1 5 10 15

Gln Val Gly Arg Thr Thr Ser Ala Tyr Phe Ser Thr Ile Pro Ser Met 20 25 30

Pro Ala Arg Ser Gln Ile Asn Leu Pro Val Glu Ser Gly Ser Ala Leu 35 40 45

Leu Glu Pro Arg Gly Lys Gly Arg Val Glu Arg Val Cys Pro Val Ala 50 55 60

Trp Ser Ser Met Val Ala Ser Cys Leu Pro Ser Pro Ser Ser Gly Gly 65 70 75 80

Pro Glu Gly Ser Leu Gly Thr Val Pro Gln Ile Leu Thr Gln Gly Pro 85 90 95

Ala Trp Gly Arg Asp Gly Cys Arg Gln Asn Ala Leu Tyr Arg Asp Phe 100 105 110

Leu Leu Gly Arg Cys Val Ser Pro Thr Ile Cys Leu 115 120 125

<210> 2229

<211> 766

<212> PRT

<213> Homo sapiens

<400> 2229

Met Ile Trp Arg Ser Arg Ala Gly Ala Glu Leu Phe Ser Leu Met Ala 1 5 10 15

Leu Trp Glu Trp Ile Ala Leu Ser Leu His Cys Trp Val Leu Ala Val 20 25 30

Ala Ala Val Ser Asp Gln His Ala Thr Ser Pro Phe Asp Trp Leu Leu 35 40 45

Ser Asp Lys Gly Pro Phe His Arg Ser Gln Glu Tyr Thr Asp Phe Val 50 55 60

Asp Arg Ser Arg Gln Gly Phe Ser Thr Arg Tyr Lys Ile Tyr Arg Glu 65 70 75 80

Phe Gly Arg Trp Lys Val Asn Asn Leu Ala Val Glu Arg Arg Asn Phe 85 90 95

Leu Gly Ser Pro Leu Pro Leu Ala Pro Glu Phe Phe Arg Asn Ile Arg
100 105 110

Leu Leu Gly Arg Arg Pro Thr Leu Gln Gln Ile Thr Glu Asn Leu Ile 115 120 125

Lys Lys Tyr Gly Thr His Phe Leu Leu Ser Ala Thr Leu Gly Gly Glu

	130					135					140				
Glu 145	Ser	Leu	Thr	Ile	Phe 150	Val	qaA	Lys	Arg	Lys 155	Leu	Ser	Lys	Arg	Ala 160
Glu	Gly	Ser	Asp	Ser 165	Thr	Thr	Asn	Ser	Ser 170	Ser	Val	Thr	Leu	Glu 175	Thr
Leu	His	Gln	Leu 180	Ala	Ala	Ser	Tyr	Phe 185	Ile	Asp	Arg	Asp	Ser 190	Thr	Leu
Arg	Arg	Leu 195	His	His	Ile	Gln	Ile 200	Ala	Ser	Thr	Ala	Ile 205	Lys	Val	Thr
Glu	Thr 210	Arg	Thr	Gly	Pro	Leu 215	Gly	Cys	Ser	Asn	Tyr 220	Asp	Asn	Leu	Asp
Ser 225	Val	Ser	Ser	Val	Leu 230	Val	Gln	Ser	Pro	Glu 235	Asn	Lys	Ile	Gln	Leu 240
Gln	Gly	Leu	Gln	Val 245	Leu	Leu	Pro	Asp	Туѓ 250	Leu	Gln	Glu	Arg	Phe 255	Val
Gln	Ala	Ala	Leu 260	Ser	Tyr	Ile	Ala	Cys 265	Asn	Ser	Glu	Gly	Glu 270	Phe	Ile
Суз	Ļys	Glu 275	Asn	Asp	Cys	Trp	Cys 280	His	Cys	Gly	Pro	Lys 285	Phe	Pro	Glu
Cys	Asn 290	Суѕ	Pro	Ser	Met	Asp 295	Ile	Gln	Ala	Met	Glu 300	Glu	Asn	Leu	Leu
Arg 305	Ile	Thr	Glu	Thr	Trp 310	Lys	Ala	Tyr	Asn	Ser 315	Asp	Phe	Glu	Glu	Ser 320
Asp	Glu	Phe	Ŀys	Leu 325	Phe	Met	Lys	Arg	Leu 330		Met	Asn	Tyr	Phe 335	Leu
Asn	Thr	Ser	Thr 340	Ile	Met	His	Leu	Trp 345	Thr	Met	Asp	Ser	Asn 350	Phe	Gln
Arg	Arg	Tyr 355		Gln	Leu	Glu	Asn 360		Met	Lys	Gln	Leu 365		Leu	Lys
Ala	Gln 370	Lys	Ile	Val	His	Lys 375		Phe	Ser	Leu	Ser 380		Arg	Суз	His
Lys 385	Gln	Pro	Leu	Ile	Ser 390		Pro	Arg	Gln	Arg 395		Ser	Thr	туг	Trp 400
Leu	Thr	Arg	Ile	Gln 405		Phe	Leu	Tyr	Cys 410		Glu	Asn	Gly	Leu 415	Leu
Gly	Ser	Phe	Ser 420		Glu	Thr	His	Ser 425		Thr	Cys	Pro	Asn 430		Gln
Val	Val	Суs 435		Ala	Phe	Leu	Pro 440		Thr	Val	Gly	Asp 445	Ala	Ser	Ala
Cys	Leu	Thr	Cys	Ala	Pro	Asp	Asn	Arg	Thr	Arg	Cys	Gly	Thr	Cys	Asn

	450					455					460				
Thr 465	Gly	Tyr	Met	Leu	Ser 470	Gln	Gly	Leu	Cys	Lys 475	Pro	Glu	Val	Ala	Glu 480
Ser	Thr	Asp	His	Tyr 485	Ile	Gly	Phe	Glu	Thr 490	Asp	Leu	Gln	Asp	Leu 495	Glu
Met	Lys	Tyr	Leu 500	Leu	Gln	Lys	Thr	Asp 505	Arg	Arg	Ile	Glu	Val 510	His	Ala
Ile	Phe	Ile 515	Ser	Asn	Asp	Met	Arg 520	Leu	Asn	Ser	Trp	Phe 525	Asp	Pro	Ser
Trp	Arg 530	Lys	Arg	Met	Leu	Leu 535	Thr	Leu	Lys	Ser	Asn 540	Lys	Tyr	Lys	Ser
Ser 545	Leu	Val	His	Met	Ile 550	Leu	Gly	Leu	Ser	Leu 555	Gln	Ile	Cys	Leu	Thr 560
Lys	Asn	Ser	Thr	Leu 565	Glu	Pro	Val	Leu	Ala 570	Val	Tyr	Val	Asn	Pro 575	Phe
Gly	Gly	Ser	His 580	Ser	Glu	Ser	Trp	Phe 585	Met	Pro	Val	Asn	Glu 590	Asn	Ser
Phe	Pro	Asp 595	Trp	Glu	Arg	Thr	Lys 600	Leu	Asp	Leu	Pro	Leu 605	Gln	Cys	Tyr
Asn	Trp 610	Thr	Leu	Thr	Leu	Gly 615	Asn	Lys	Trp	Lys	Thr 620	Phe	Phe	Glu	Thr
Val 625	His	Ile	Tyr	Leu	Arg 630	Ser	Arg	Ile	Lys	Ser 635	Asn	Gly	Pro	Asn	Gly 640
Asn	Glu	Ser	Ile	Tyr 645	Tyr	Glu	Pro	Leu	Glu 650	Phe	Ile	Asp	Pro	Ser 655	Arg
Asn	Leu	Gly	Туг 660	Met	Lys	Ile	Asn	Asn 665	Ile	Gln	Val		Gly 670	Tyr	Ser
Met	His	Phe 675	Asp	Pro	Glu	Ala	11e 680	Arg	Asp	Leu	Ile	Leu 685	Gln	Leu	Asp
Tyr	Pro 690	Tyr	Thr	Gln	Gly	Ser 695	Gln	Asp	Ser	Ala	Leu 700	Leu	Gln	Leu	Leu
Glu 705	Ile	Arg	Asp	Arg	Val -710	Asn	Lys	Leu	Ser	Pro 715	Pro	Gly	Gln	Arg	Arg 720
Leu	Asp	Leu	Phe	Ser 725	Cys	Leu	Leu	Arg	His 730	Arg	Leu	ГÀ2	Leu	Ser 735	Thr
Ser	Glu	Val	Val 740	Arg	Ile	Gln	Ser	Ala 745	Leu	Gln	Ala	Phe	Asn 750	Ala	Lys

Leu Pro Asn Thr Met Asp Tyr Asp Thr Thr Lys Leu Cys Ser 755 760 765

<210> 2230

<211> 61

<212> PRT

<213> Homo sapiens

<400> 2230

Met Lys Ser Ala Leu His Arg Asp Ile Cys Ile Leu Met Leu Thr Ala 1 5 10

Ala Leu Phe Thr Ile Ala Lys Thr Glu Lys Gln His Lys Cys Pro Ser 20 25 30

Ile Asp Glu Gln Ile Asn Asn Leu Gln Tyr Ile Cys Thr Met Glu Tyr 35 40 45

His Ser Ala Leu Gln Lys Glu Met Leu Leu Tyr Leu Gln 50 55 60

<210> 2231

<211> 133

<212> PRT

<213> Homo sapiens

<400> 2231

Met Arg Met Ser Leu Ala Gln Arg Val Leu Leu Thr Trp Leu Phe Thr 1 5 10 15

Leu Leu Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro 20 25 30

Trp Asn Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile 35 40 45

Leu Leu Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly 50 55 60

Phe Asp Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr 65 70 75 80

Leu Ile Ala Met Leu Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala 85 90 95

Lys Leu Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Leu Trp Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val 115 120 125

Phe Phe Val Arg Asp 130

<210> 2232

<311> 131

<212> PRT

<213> Homo sapiens

<400> 2232

Met Ser Leu Ala Gln Arg Val Leu Leu Thr Trp Leu Phe Thr Leu Leu 1 5 10 15

Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro Trp Asn 20 25 30

Trp Phe-Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile Leu Leu 35 40 45

Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly Phe Asp 50 55 60

Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr Leu Ile 65 70 75 80

Ala Met Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala Lys Leu 85 90 95

Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro Leu Trp 100 105 110

Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val Phe Phe 115 120 125

Val Arg Asp 130

<210> 2233

<211> 298

<212> PRT

<213> Homo sapiens

<400> 2233

Met Lys Thr Leu Gln Ser Thr Leu Leu Leu Leu Leu Leu Val Pro Leu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ile Lys Pro Ala Pro Pro Thr Gln Gln Asp Ser Arg Ile Ile Tyr Asp 20 25 30

Tyr Gly Thr Asp Asn Phe Glu Glu Ser Ile Phe Ser Gln Asp Tyr Glu 35 40 45

Asp Lys Tyr Leu Asp Gly Lys Asn Ile Lys Glu Lys Glu Thr Val Ile 50 55 60

Ile Pro Asn Glu Lys Ser Leu Gln Leu Gln Lys Asp Glu Ala Ile Thr 65 70 75 80

Pro Leu Pro Pro Lys Lys Glu Asn Asp Glu Met Pro Thr Cys Leu Leu 85 90 95

Cys Val Cys Leu Ser Gly Ser Val Tyr Cys Glu Glu Val Asp Ile Asp 100 105 110

Ala Val Pro Pro Leu Pro Lys Glu Ser Ala Tyr Leu Tyr Ala Arg Phe 115 120 125

Asn Lys Ile Lys Lys Leu Thr Ala Lys Asp Phe Ala Asp Ile Pro Asn 130 135 140

Leu Arg Arg Leu Asp Phe Thr Gly Asn Leu Ile Glu Asp Ile Glu Asp 145 150 160

Gly Thr Phe Ser Lys Leu Ser Leu Leu Glu Glu Leu Ser Leu Ala Glu
165 170 175

Asn Gln Leu Leu Lys Leu Pro Val Leu Pro Pro Lys Leu Thr Leu Phe 180 185 190

Asn Ala Lys Tyr Asn Lys Ile Lys Ser Arg Gly Ile Lys Ala Asn Ala 195 200 205

Phe Lys Lys Leu Asn Asn Leu Thr Phe Leu Tyr Leu Asp His Asn Ala 210 215 220

Leu Glu Ser Val Pro Leu Asn Leu Pro Glu Ser Leu Arg Val Ile His 225 230 235 240

Leu Gln Phe Asn Asn Ile Ala Ser Ile Thr Asp Asp Thr Phe Cys Lys 245 250 255

Ala Asn Asp Thr Ser Tyr Ile Arg Asp Arg Ile Glu Glu Ile Arg Leu 260 265 270

Glu Gly Asn Pro Ile Val Leu Gly Lys His Pro Asn Ser Phe Ile Cys 275 280 285

Leu Lys Arg Leu Pro Ile Gly Ser Tyr Phe 290 295

<210> 2234

<211> 158

<212> PRT

<213> Homo sapiens

<400> 2234

Met Ala Ala Ser Ala Gly Ala Thr Arg Leu Leu Leu Leu Leu 1 5 10 15

Met Ala Val Ala Ala Pro Ser Arg Ala Arg Gly Ser Gly Cys Arg Ala 20 25 30

Giy Thr Gly Ala Arg Gly Ala Gly Ala Glu Gly Arg Glu Gly Glu Ala 35 40 45

Cys Gly Thr Val Gly Leu Leu Glu His Ser Phe Glu Ile Asp Asp 50 55 60

Ser Ala Asn Phe Arg Lys Arg Gly Ser Leu Leu Trp Asn Gln Gln Asp 65 70 75 80

Gly Thr Leu Ser Leu Ser Gln Arg Gln Leu Ser Glu Glu Glu Arg Gly 85 90 95

Arg Leu Arg Asp Val Ala Ala Ser Tyr Leu Asp Cys Gly Ala Thr Arg 100 105 110

Ala Cys Gly Pro Leu Leu Cys Ala Thr Leu Pro Val Ser Leu Phe Lys 115 120 125

Asn Ile Asp Asp Thr Leu Lys Cys Val Asn Val Leu Lys Ser Tyr Ser 130 135 140

Phe Gln Gln Pro Lys Ala Thr Val Val Leu Ala Arg Arg Ser 145 150 155

<210> 2235

<211> 58

<212> PRT

<213> Homo sapiens

<400> 2235

Met Thr Lys Ala Leu Ile Pro Thr Pro Phe Phe Leu Ala Ala Met Trp
1 5 10 15

Pro Leu Trp Gln His Ser Trp Ala Gln Thr Leu Arg Ser Gln Arg Gln 20 25 30

Glu Ala Asp Ala Trp Ala Lys Ala Gly Ala Gly Asn Ser Arg Gly Ser 35 40 45

Leu Ala Trp Arg Leu Leu Met Ser Ser Gly 50

<210> 2236

<211> 71

<212> PRT

<213> Homo sapiens

<400> 2236

Met Leu Val Ala Ala Ile Val Phe Ile Ser Phe Gly Val Val Ala Ala $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Phe Cys Cys Ala Ile Val Asp Gly Val Phe Ala Ala Gln His Ile Glu 20 25 30

Pro Lys Ala Pro His His Gly Lys Met Pro Val Tyr Ser Ser Gly Val 35 40 45

Gly Tyr Leu Tyr Asp Val Tyr Gln Thr Glu Val Ser Arg Ser Thr Glu 50 55 60

Ile His Val Gly Leu Leu Asn 65 70

<210> 2237

<211> 605

<212> PRT

<213> Homo sapiens

<400> 2237

Met Gly Arg Leu Leu Arg Ala Ala Arg Leu Pro Pro Leu Leu Ser Pro 1 5 10 15

Leu Leu Leu Leu Val Gly Gly Ala Phe Leu Gly Ala Cys Val Ala
20 25 30

Gly Ser Asp Glu Pro Gly Pro Glu Gly Leu Thr Ser Thr Ser Leu Leu 35 40 45

Asp Leu Leu Pro Thr Gly Leu Glu Pro Leu Asp Ser Glu Glu Pro 50 55 60

Ser Glu Thr Met Gly Leu Gly Ala Gly Leu Gly Ala Pro Gly Ser Gly 65 70 75 80

Phe Pro Ser Glu Glu Asn Glu Glu Ser Arg Ile Leu Gln Pro Pro Gln 85 90 95

Tyr Phe Trp Glu Glu Glu Glu Glu Leu Asn Asp Ser Ser Leu Asp Leu 100 105 110

Gly Pro Thr Ala Asp Tyr Val Phe Pro Asp Leu Thr Glu Lys Ala Gly 115 120 125

Ser Ile Glu Asp Thr Ser Gln Ala Gln Glu Leu Pro Asn Leu Pro Ser 130 135 140

Pro Leu Pro Lys Met Asn Leu Val Glu Pro Pro Trp His Met Pro Pro 145 150 155 160

Glu Val Glu Lys Gln Glu Glu Glu Glu Glu Glu Leu Leu Pro Val 180 185 190

Asn Gly Ser Gln Glu Glu Ala Lys Pro Gln Val Arg Asp Phe Ser Leu 195 200 205

Thr Ser Ser Ser Gln Thr Pro Gly Ala Thr Lys Ser Arg His Glu Asp 210 215 220

Ser Gly Asp Gln Ala Ser Ser Gly Val Glu Val Glu Ser Ser Met Gly 225 230 235 240

Pro Ser Leu Leu Pro Ser Val Thr Pro Thr Thr Val Thr Pro Gly 245 250 255

Asp Gln Asp Ser Thr Ser Gln Glu Ala Glu Ala Thr Val Leu Pro Ala 260 265 270

Ala Gly Leu Gly Val Glu Phe Glu Ala Pro Gln Glu Ala Ser Glu Glu 275 280 285

Ala Thr Ala Gly Ala Ala Gly Leu Ser Gly Gln His Glu Glu Val Pro 290 295 300

Ala Leu Pro Ser Phe Pro Gln Thr Thr Ala Pro Ser Gly Ala Glu His 310 Pro Asp Glu Asp Pro Leu Gly Ser Arg Thr Ser Ala Ser Ser Pro Leu 330 Ala Pro Gly Asp Met Glu Leu Thr Pro Ser Ser Ala Thr Leu Gly Gln 345 Glu Asp Leu Asn Gln Gln Leu Leu Glu Gly Gln Ala Ala Glu Ala Gln Ser Arg Ile Pro Trp Asp Ser Thr Gln Val Ile Cys Lys Asp Trp Ser 375 380 Asn Leu Ala Gly Lys Asn Tyr Ile Ile Leu Asn Met Thr Glu Asn Ile 390 Asp Cys Glu Val Phe Arg Gln His Arg Gly Pro Gln Leu Leu Ala Leu 405 410 Val Glu Glu Val Leu Pro Arg His Gly Ser Gly His His Gly Ala Trp 425 His Ile Ser Leu Ser Lys Pro Ser Glu Lys Glu Gln His Leu Leu Met Thr Leu Val Gly Glu Gln Gly Val Val Pro Thr Gln Asp Val Leu Ser 455 Met Leu Gly Asp Ile Arg Arg Ser Leu Glu Glu Ile Gly Ile Gln Asn 470 Tyr Ser Thr Thr Ser Ser Cys Gln Ala Arg Ala Ser Gln Val Arg Ser 490 Asp Tyr Gly Thr Leu Phe Val Val Leu Val Val Ile Gly Ala Ile Cys 500 505 Ile Ile Ile Ile Ala Leu Gly Leu Leu Tyr Asn Cys Trp Gln Arg Arg Leu Pro Lys Leu Lys His Val Ser His Gly Glu Glu Leu Arg Phe Val Glu Asn Gly Cys His Asp Asn Pro Thr Leu Asp Val Ala Ser Asp Ser 550 555 Gln Ser Glu Met Gln Glu Lys His Pro Ser Leu Asn Gly Gly Ala

Pro Glu Asp Ser Asp Val Phe Glu Glu Asp Thr His Leu
595 600 605

Leu Asn Gly Pro Gly Ser Trp Gly Ala Leu Met Gly Gly Lys Arg Asp 580 585 590

<211> 432

<212> PRT

<213> Homo sapiens

<400> 2238

Met Asp Ala Arg Trp Trp Ala Val Val Leu Ala Ala Phe Pro Ser 1 5 10 15

Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro Glu Ser Trp Thr
20 25 30

Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser 35 40 45

Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe Arg Arg Lys Asn 50 60

Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys 65 70 75 80

Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro 85 90 95

Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu 100 \$105\$

Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val

Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser 130 135 140

Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg 145 150 155 160

Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln
165 170 175

Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser 180 185 190

Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser 195 200 205

Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met 210 215 220

Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr 225 230 235 240

Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met Phe Leu Leu Ser 245 250 255

Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr Leu Ser Gly Leu 260 265 270

Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe Thr Ser Asn Trp 275 280 285

Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val Gln Met Met Fhe

290 295 300

Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu 305 310 315 320

Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly Arg His Ser Glu 325 330 335

Phe Ala Ala His Ala Leu Leu Ser Ile Cys Ser Ala Cys Gly Gln 340 345 350

Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr 355 360 365

Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu Leu Ser Cys Leu 370 375 380

Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val 385 390 395 400

Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg Gly Arg Leu Lys \$405\$ \$410\$ \$415

Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro Val Gln Lys Val 420 425 430

<210> 2239

<211> 432

<212> PRT

<213> Homo sapiens

<400> 2239

Met Asp Ala Arg Trp Trp Ala Val Val Leu Ala Ala Phe Pro Ser 1 5 10 15

Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro Glu Ser Trp Thr 20 25 30

Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser 35 40 45

Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe Arg Arg Lys Asn 50 55 60

Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys
65 70 75 80

Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro 85 90 95

Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu 100 105 110

Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val 115 120 125

Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser 135 Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg 150 155 Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln 170 Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser 185 Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser 200 Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr 230 235 225 Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met Phe Leu Leu Ser 250 245 Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr Leu Ser Gly Leu 260 265 Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe Thr Ser Asn Trp Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val Gln Met Met Phe 295 Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu 310 315 Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly Arg His Ser Glu 330 Phe Ala Ala His Ala Leu Leu Ser Ile Cys Ser Ala Cys Gly Gln Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu Leu Ser Cys Leu 375 Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val 390 395 Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg Gly Arg Leu Lys 405 Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro Val Gln Lys Val 425

<210> 2240

<211> 69

<212> PRT

<213> Homo sapiens

<400> 2240

Met Lys Ala Val Val Leu Leu Lys Ala Phe Ser Phe Ser Leu Cys Ser 1 5 10 15

Ala Ile Ser Pro Val Thr Pro Gly Phe Arg Gln Thr Ile Asn Val Leu 20 25 30

Asp Thr Val Ala Phe Ser Ala Phe Phe Ile Tyr Leu Phe Thr Val Thr 35 40 45

Ala Ser Ile Asn Phe Tyr Ala Tyr Phe Ser Ser Phe Leu Ala Gly Ala 50 60

Pro Phe Ile Lys Ile 65

<210> 2241

<211> 57

<212> PRT

<213> Homo sapiens

<400> 2241

Met Leu Asp Leu Ser Pro Ser Leu Thr Leu Lys Phe Cys Phe Leu His $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Leu Val Phe Leu Pro Phe Lys Val Tyr Cys Gln Leu Leu Gln Glu Leu 20 25 30

Leu Ser Lys Pro Val Ser Lys Leu Pro Leu Thr Pro Gln Cys Gln Ser 35 40 45

Trp Ala Arg Pro Leu Gly Asp Leu Glu 50 55

<210> 2242

<211> 145

<212> PRT

<213> Homo sapiens

<400> 2242

Met Leu Arg Thr Leu Val Leu Lys Gln Thr Leu Asp Leu Leu Pro
1 5 10 15

Leu Leu Glu Ala Leu Leu Val Leu Gly Val Pro Gln His Leu Glu Leu 20 25 30

Gln Pro Leu Pro Val Gln Val Ser Leu Leu Leu Leu Gln Leu Leu Asp 35 40 45

Leu Gly Ser Leu Lys Ser His Arg Leu His His Phe His Ser Lys Ala 50 55 60

Leu Gln Leu Pro Val Leu Asp His Leu Asp Phe Gln Asp Phe Gln Leu 65 70 75 80

Pro Trp Gln Gln Val Leu Ser Glu Leu Pro Val Ala Pro Ala Phe Gly 85 90 95

Gly Gly Ser Ser Val Ala Gly Phe Gly Ser Pro Gly Leu Thr Phe Ser 100 105 110

His Trp Leu Phe Leu Ser His Pro Val Asp Thr Phe Gly Asn Ser Gln 115 120 125

Ala Tyr Pro Thr Ser Leu Ser Ala Leu Gln Ala Ser Ile Asn Cys Asn 130 135 140

Arg 145

<210> 2243

<211> 77

<212> PRT

<213> Homo sapiens

<400> 2243

Met Ala Ile Cys Gln Phe Phe Leu Gln Gly Arg Cys Arg Phe Gly Asp 1 5 10 15

Arg Cys Trp Asn Glu His Pro Gly Ala Arg Gly Ala Gly Gly Arg . 20 25 30

Gln Gln Pro Gln Gln Pro Ser Gly Asn Asn Arg Arg Gly Trp Asn 35 40 45

Thr Thr Ser Gln Arg Tyr Ser Asn Val Ile Gln Pro Ser Ser Phe Ser 50 55 60

Lys Ser Thr Pro Trp Gly Gly Ser Arg Asp Gln Glu Thr 65 70 75

<210> 2244

<211> 86

<212> PRT

<213> Homo sapiens

<400> 2244

Met Tyr Lys Leu Glu Leu Ile Phe Pro Thr Ala Leu Val Leu Pro Ile 1 5 10 15

Leu Val Asn Gly Thr Val Ile Cys Pro Leu Lys Ala Arg Asn Ser Val 20 25 30

Ile Pro Ser Ser Ser Phe Leu Thr Ser Leu Gln Leu Thr Ile Trp Ile

5 40 45

Gln Pro Cys Leu Phe Leu Pro Thr Thr Gly Leu Ser Ser Gly Tyr 50 60

His Thr Phe Leu Ser Gly Leu His Ser Cys His Ile Ser Phe Ala Thr 65 70 75 80

Ala Ile Pro Gly Cys Leu 85

<210> 2245

<211> 208

<212> PRT

<213> Homo sapiens

<400> 2245

Met Gly Leu Gly Ala Arg Gly Ala Trp Ala Ala Leu Leu Gly Thr 1 5 10 15

Leu Gl
n Val Leu Ala Leu Leu Gly Ala Ala His Glu Ser Ala Ala Met
 20 25 30

Ala Ala Ser Ala Asn Ile Glu Asn Ser Gly Leu Pro His Asn Ser Ser 35 40 45

Ala Asn Ser Thr Glu Thr Leu Gln His Val Pro Ser Asp His Thr Asn 50 55 60

Glu Thr Ser Asn Ser Thr Val Lys Pro Pro Thr Ser Val Ala Ser Asp
65 70 75 80

Ser Ser Asn Thr Thr Val Thr Thr Met Lys Pro Thr Ala Ala Ser Asn 85 90 95

Thr Thr Thr Pro Gly Met Val Ser Thr Asn Met Thr Ser Thr Thr Leu 100 105 110

Lys Ser Thr Pro Lys Thr Thr Ser Val Ser Gln Asn Thr Ser Gln Ile 115 120 125

Ser Thr Ser Thr Met Thr Val Thr His Asn Ser Ser Val Thr Ser Ala 130 135 140

Ala Ser Ser Val Thr Ile Thr Thr Thr Met His Ser Glu Ala Lys Lys 145 150 155 160

Gly Ser Lys Phe Asp Thr Gly Ser Phe Val Gly Gly Ile Val Leu Thr 165 170 175

Leu Gly Val Leu Ser Ile Leu Tyr Ile Gly Cys Lys Met Tyr Tyr Ser 180 185 190

Arg Arg Gly Ile Arg Tyr Arg Thr Ile Asp Glu His Asp Ala Ile Ile 195 200 205

<210> 2246

<211> 215

<212> PRT

<213> Homo sapiens

<400> 2246

Met Arg Leu Pro Ala Trp Cys Arg His Thr Thr Leu Ala Ile Ser Cys
1 5 10 15

Trp His Cys Leu Val Leu Ala Arg Ala Ser Ala Asp Ser Ala Ser Leu 20 25 30

Pro Thr Ile Ser His Leu Gly Val Lys Pro Leu Ser Val Gly Trp Gly 40 45

Ala Pro Ser Thr Leu Pro Val Ser Pro Cys Gly Gly Lys Pro Ala Ala 50 55 60

Pro Thr Ser Ala Ser Pro Ala Ala Ala Pro Leu Arg Phe Trp Arg Pro 65 70 75 80

Gly Ala Ser Gly Gly Gly Ala Gly Gly Thr Arg Arg Leu Ala Leu Cys 90 95

Arg Leu Val Thr Ala Arg Thr Thr Leu Ala Thr Gly Thr Pro Gly Leu 100 105 110

Ser Ala Arg Pro Arg Gln Arg Pro Cys Leu Leu Pro Val Leu Pro Arg 115 120 125

Arg Pro Ala Glu Leu Ser Val Ser Leu Glu Pro Ser Pro Gly Ser Ser 130 135 140

Gly Arg Gly Phe Leu Cys Leu Pro Phe Cys Lys Arg Asp Ala Asp Thr 145 150 155 160

Ser Leu Gly Gln Thr Leu Thr Ser Ser Cys Ser Leu Ser Ser Ile Leu 165 170 175

Val Gly Gly Thr Leu Arg Pro Arg Cys Ser Cys Pro Pro Phe Thr Gln 180 185 190

Arg Ser Ala Phe His Leu Arg Thr Pro His Asn Gln Tyr His His Gly 195 200 205

Ser Thr Ser Leu Ala Ser His 210 215

<210> 2247

<211> 139

<212> PRT

<213> Homo sapiens

<400> 2247

Met Lys Thr Leu Leu Leu Leu Val Gly Leu Leu Ieu Thr Trp Glu Asn

1 5 10 15

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu 20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala 35 40 45

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu 50 60

Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys 65 70 75 80

Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala 85 90 95

Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys 100 105 110

Lys Pro Cys Leu Lys Gln Thr Trp Gly Lys Gly Leu Arg Pro Ser Leu 115 120 125

Gln Lys Gln His Arg Ala Gly Trp Pro Pro Gly 130 135

<210> 2248

<211> 363

<212> PRT

<213> Homo sapiens

<400> 2248

Met Lys Thr Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn 1 5 10 15

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu 20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala 35 40 45

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu 50 55 60

Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys 65 70 75 80

Glu Asp Ala Leu Asp Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys
100 . 105 110

Lys Pro Cys Leu Lys Gln Thr Cys Met Lys Phe Tyr Ala Arg Val Cys 115 120 125

Arg Ser Ser Thr Gly Leu Val Gly His Gln Val Glu Glu Phe Leu Asn 130 135 140

Gln 145	Ser	Ser	Pro	Phe	Tyr 150	Phe	Trp	Ile	Asn	Gly 155	Asp	Arg	Ile	Asp	Ser 160
Leu	Leu	Glu	Asn	Asp 165	Arg	Gln	Gln	Thr	His 170	Ala	Leu	Asp	Val	Met 175	Gln
Asp	Ser	Phe	Asp 180	Arg	Ala	Ser	Ser	Ile 185	Met	Asp	Glu	Leu	Phe 190	Gln	Asp
Arg	Phe	Phe 195	Thr	Arg	Glu	Ala	Gln 200	Asp	Pro	Phe	His	Phe 205	Ser	Pro	Phe
Ser	Ser 210	Phe	Gln	Arg	Arg	Pro 215	Phe	Phe	Phe	Asn	Ile 220	Lys	His	Arg	Phe
Ala 225	Arg	Asn	Ile	Met	Pro 230	Phe	Pro	Gly	Ţyr	Gln 235	Pro	Leu	Asn	Phe	His 240
Asp	Met	Phe	Gln	Pro 245	Phe	Phe	Asp	Met	Ile 250	His	Gln	Ala	Gln	Gln 255	Ala
Met	Asp	Val	Asn 260	Leu	His	Arg	Leu	Pro 265	His	Phe	Pro	Met	Glu 270	Phe	Thr
Glu	Glu	Asp 275	Asn	Gln	Asp	Gly	Ala 280	Val	Cys	Lys	Glu	Ile 285	Arg	His	Asn
Ser	Thr 290	Gly-	Cys	Leu	Lys	Met 295	Lys	Asp	Gln	Cys	Glu 300	Lys	Cys	Arg	Glu
Ile 305	Leu	Ser	Val	Asp	Cys 310	Ser	Ser	Asn	Asn	Pro 315	Ala	Gln	Val	Gln	Leu 320
Arg	Gln	Glu	Leu	Asn 325	Asn	Ser	Leu	Gln	Ile 330	Ala	Glu	Lys	Phe	Thr 335	Lys
Leu	Val	Arg	Arg 340	Ala	Ala	Ala	Val	Leu 345	Pro	Gly	Glu	Asp	Val 350	Gln	His
Val	Leu	Pro 355	Ala	Glu	Ala	Ala	Gly 360	Arg	Ala	Val					
<210> 2249 <211> 85 <212> PRT															
<213> Homo sapiens															
	0> 2 Ala		Glv	G1v	Cvs	Leu	Leu	Leu	Leu	Ala	Phe	Phe	Pro	Leu	Ser
1			1	5	-10				10				*	15	

Phe Glu Ala Thr Leu Cys Glu Leu Phe Val Ile Glu Thr Ala Ser Lys 35 40 45

Arg Gly Ser His Phe His Leu Gln Lys Arg Ala Leu Ala Glu Ala Ser

20

Gly Thr Leu Leu Ile Ile Thr Ile Arg His Leu Val Thr Tyr Ile Ile 50 55 60

Val Ile Phe Lys Cys His Met Leu Lys Asn Glu Met Asn Ser Ser Ile
65 70 75 , 80

Lys Pro His Phe Gln
85

<210> 2250

<211> 184

<212> PRT

<213> Homo sapiens

<400> 2250

Met Lys Ala Leu Gly Ala Val Leu Leu Alá Leu Leu Leu Cys Gly Arg 1 5 10 15

Pro Gly Arg Gly Gln Thr Gln Gln Glu Glu Glu Glu Glu Asp Glu Asp 20 25 30

His Gly Pro Asp Asp Tyr Asp Glu Glu Asp Glu Asp Glu Val Glu Glu 35 40 45

Glu Glu Thr Asn Arg Leu Pro Gly Gly Arg Ser Arg Val Leu Leu Arg 50 60

Cys Tyr Thr Cys Lys Ser Leu Pro Arg Asp Glu Arg Cys Asn Leu Thr 65 70 75 80

Gln Asn Cys Ser His Gly Gln Thr Cys Thr Thr Leu Ile Ala His Gly 85 90 95

Asn Thr Glu Ser Gly Leu Leu Thr Thr His Ser Thr Trp Cys Thr Asp $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$

Ser Cys Gln Pro Ile Thr Lys Thr Val Glu Gly Thr Gln Val Thr Met 115 120 125

Thr Cys Cys Gln Ser Ser Leu Cys Asn Val Pro Pro Trp Gln Ser Ser 130 135 140

Arg Val Gln Asp Pro Thr Gly Lys Gly Ala Gly Gly Pro Arg Gly Ser 145 150 155 160

Ser Glu Thr Val Gly Ala Ala Leu Leu Leu Asn Leu Leu Ala Gly Leu 165 170 175

Gly Ala Met Gly Ala Arg Arg Pro

<210> 2251

<211> 352

<212> PRT

<213> Homo sapiens

_	1	٦	C > 1	2	2	5	1	

Met Val Glu Ala Leu Arg Ala Gly Ser Ala Arg Leu Val Ala Ala Pro 1 5 10 15

Val Ala Thr Ala Asn Pro Ala Arg Cys Leu Ala Leu Asn Val Ser Leu 20 25 30

Arg Glu Trp Thr Ala Arg Tyr Gly Ala Ala Pro Ala Ala Pro Arg Cys 35 40 45

Asp Ala Leu Asp Gly Asp Ala Val Val Leu Leu Arg Ala Arg Asp Leu 50 55 60

Phe Asn Leu Ser Ala Pro Leu Ala Arg Pro Val Gly Thr Ser Leu Phe 65 70 75 80

Leu Gln Thr Ala Leu Arg Gly Trp Ala Val Gln Leu Leu Asp Leu Thr 85 90 95

Phe Ala Ala Arg Gln Pro Pro Leu Ala Thr Ala His Ala Arg Trp
100 105 110

Lys Ala Glu Arg Glu Gly Arg Ala Arg Arg Ala Ala Leu Leu Arg Ala 115 120 125

Leu Gly Ile Arg Leu Val Ser Trp Glu Gly Gly Arg Leu Glu Trp Phe 130 135 140

Gly Cys Asn Lys Glu Thr Thr Arg Cys Phe Gly Thr Val Val Gly Asp 145 150 155 160

Thr Pro Ala Tyr Leu Tyr Glu Glu Arg Trp Thr Pro Pro Cys Cys Leu 165 170 175

Arg Ala Leu Arg Glu Thr Ala Arg Tyr Val Val Gly Val Leu Glu Ala 180 185 190

Ala Gly Val Arg Tyr Trp Leu Glu Gly Gly Ser Leu Leu Gly Ala Ala 195 200 205

Arg His Gly Asp Ile Ile Pro Trp Asp Tyr Asp Val Asp Leu Gly Ile 210 215 220

Tyr Leu Glu Asp Val Gly Asn Cys Glu Gln Leu Arg Gly Ala Glu Ala 225 230 235 240

Gly Ser Val Val Asp Glu Arg Gly Phe Val Trp Glu Lys Ala Val Glu 245 250 255

Gly Asp Phe Phe Arg Val Gln Tyr Ser Glu Ser Asn His Leu His Val 260 265 270

Asp Leu Trp Pro Phe Tyr Pro Arg Asn Gly Val Met Thr Lys Asp Thr 275 280 285

Trp Leu Asp His Arg Gln Asp Val Glu Phe Pro Glu His Phe Leu Gln 290 295 300

Pro Leu Val Pro Leu Pro Phe Ala Gly Phe Val Ala Gln Ala Pro Asn 305 310 315 320

Asn Tyr Arg Arg Phe Leu Glu Leu Lys Phe Gly Pro Gly Val Ile Glu 325 330 335

Asn Pro Gln Tyr Pro Asn Pro Ala Leu Leu Ser Leu Thr Gly Ser Gly 340 345 350

<210> 2252

<211> 448

<212> PRT

<213> Homo sapiens

<400> 2252

Met Ala Trp Ala Ser Arg Leu Gly Leu Leu Leu Ala Leu Leu Leu Pro 1 5 10 15

Val Val Gly Ala Ser Thr Pro Gly Thr Val Val Arg Leu Asn Lys Ala 20 25 30

Ala Leu Ser Tyr Val Ser Glu Ile Gly Lys Ala Pro Leu Gln Arg Ala 35 40 45

Leu Gln Val Thr Val Pro His Phe Leu Asp Trp Ser Gly Glu Ala Leu 50 60

Gln Pro Thr Arg Ile Arg Ile Leu Asn Val His Val Pro Arg Leu His 65 70 75 80

Leu Lys Phe Ile Ala Gly Phe Gly Val Arg Leu Leu Ala Ala Asn 85 90 95

Phe Thr Phe Lys Val Phe Arg Ala Pro Glu Pro Leu Glu Leu Thr Leu 100 105 110

Pro Val Glu Leu Leu Ala Asp Thr Arg Val Thr Gln Ser Ser Ile Arg 115 120 125

Thr Pro Val Val Ser Ile Ser Ala Cys Ser Leu Phe Ser Gly His Ala 130 135 140

Asn Glu Phe Asp Gly Ser Asn Ser Thr Ser His Ala Leu Leu Val Leu 145 150 155 160

Val Gln Lys His Ile Lys Ala Val Leu Ser Asn Lys Leu Cys Leu Ser 165 170 175

Ile Ser Asn Leu Val Gln Gly Val Asn Val His Leu Gly Thr Leu Ile 180 185 190

Gly Leu Asn Pro Val Gly Pro Glu Ser Gln Ile Arg Tyr Ser Met Val 195 200 205

Ser Val Pro Thr Val Thr Ser Asp Tyr Ile Ser Leu Glu Val Asn Ala 210 215 220

Val Leu Phe Leu Leu Gly Lys Pro Ile Ile Leu Pro Thr Asp Ala Thr 230 Pro Phe Val Leu Pro Arg His Val Gly Thr Glu Gly Ser Met Ala Thr Val Gly Leu Ser Gln Gln Leu Phe Asp Ser Ala Leu Leu Leu Gln 265 Lys Ala Gly Ala Leu Asn Leu Asp Ile Thr Gly Gln Leu Arg Ser Asp Asp Asn Leu Leu Asn Thr Ser Ala Leu Gly Arg Leu Ile Pro Glu Val 295 Ala Arg Gln Phe Pro Glu Pro Met Pro Val Val Leu Lys Val Arg Leu 310 315 Gly Ala Thr Pro Val Ala Met Leu His Thr Asn Asn Ala Thr Leu Arg Leu Gln Pro Phe Val Glu Val Leu Ala Thr Ala Ser Asn Ser Ala Phe 345 Gln Ser Leu Phe Ser Leu Asp Val Val Val Asn Leu Arg Leu Gln Leu Ser Val Ser Lys Val Lys Leu Gln Gly Thr Thr Ser Val Leu Gly Asp Val Gln Leu Thr Val Ala Ser Ser Asn Val Gly Phe Ile Asp Thr Asp Gln Val Arg Thr Leu Met Gly Thr Val Phe Glu Lys Pro Leu Leu Asp 410 His Leu Asn Ala Leu Leu Ala Met Gly Ile Ala Leu Pro Gly Val Val 420 425 Asn Leu His Tyr Val Pro Leu Arg Ser Leu Ser Met Arg Ala Thr Trp 440 435 445

<210> 2253

<211> 183

<212> PRT

<213> Homo sapiens

<400> 2253

Met Glu Pro Glu Glu Gly Thr Pro Leu Trp Arg Leu Gln Lys Leu Pro
1 5 10 15

Ala Glu Leu Gly Pro Gln Leu Leu His Lys Ile Ile Asp Gly Ile Cys
20 25 30

Gly Arg Ala Tyr Pro Val Tyr Gln Asp Tyr His Thr Val Trp Glu Ser

35 40 45

Glu Glu Trp Met His Val Leu Glu Asp Ile Ala Lys Phe Phe Lys Ala 50 55 60

Ile Val Gly Lys Asn Leu Pro Asp Glu Glu Ile Phe Gln Gln Leu Asn 65 70 75 80

Gln Leu Asn Ser Leu His Gln Glu Thr Ile Met Lys Cys Val Lys Ser 85 90 95

Arg Lys Asp Glu Ile Lys Gln Ala Leu Ser Arg Glu Ile Val Ala Ile 100 105 110

Ser Ser Ala Gln Leu Gln Asp Phe Asp Trp Gln Val Lys Leu Ala Leu 115 120 125

Ser Ser Asp Lys Ile Ala Ala Leu Arg Met Pro Leu Leu Ser Leu His 130 135 140

Ser Arg Glu Glu Leu Gln Asn Leu Ile Gln Ser Leu Glu Ala Ala Asn 165 170 175

Lys Val Val Leu Gln Leu Lys 180

<210> 2254

<211> 121

<212> PRT

<213> Homo sapiens

<400> 2254

Met Pro Cys Gly Arg Gln His Leu Gln Asn Leu Asp Asp Ala Val Asn 1 5 10 15

Gly Ser Ala Trp Thr Ile Leu Leu Leu Thr Glu Asn Phe Leu Arg Asp
20 25 30

Thr Trp Cys Asn Phe Gln Phe Tyr Thr Ser Leu Met Asn Ser Val Asn 35 40 45

Arg Gln His Lys Tyr Asn Ser Val Ile Pro Met Arg Pro Leu Asn Asn 50 55 60

Pro Leu Pro Arg Glu Arg Thr Pro Phe Ala Leu Gln Thr Ile Asn Ala 65 70 75 80

Leu Glu Glu Ser Arg Gly Phe Pro Thr Gln Val Glu Arg Ile Phe 85 90 95

Gln Glu Ser Val Tyr Lys Thr Gln Gln Thr Ile Trp Lys Glu Thr Arg 100 105 110

Asn Met Val Gln Arg Gln Phe Ile Ala 115 120

<210> 2255

<211> 251

<212> PRT

<213> Homo sapiens

<400> 2255

Met Leu Phe His Tyr Asp Trp Ile Ser Ile Pro Leu Val Tyr Thr Gln
1 5 10 15

Val Val Thr Ile Ala Val Tyr Ser Phe Phe Ala Leu Ser Leu Val Gly
20 25 30

Arg Gln Phe Val Glu Pro Glu Ala Gly Ala Ala Lys Pro Gln Lys Leu 35 40 45

Leu Lys Pro Gly Gln Glu Pro Ala Pro Ala Leu Gly Asp Pro Asp Met 50 55 60

Tyr Val Pro Leu Thr Thr Leu Leu Gln Phe Phe Phe Tyr Ala Gly Trp 65 70 75 80

Leu Lys Val Ala Glu Gln Ile Ile Asn Pro Phe Gly Glu Asp Asp Asp 85 90 95

Asp Phe Glu Thr Asn Gln Leu Ile Asp Arg Asn Leu Gln Val Ser Leu 100 105 110

Leu Ser Val Asp Glu Met Tyr Gln Asn Leu Pro Pro Ala Glu Lys Asp 115 120 125

Gln Tyr Trp Asp Glu Asp Gln Pro Gln Pro Pro Tyr Thr Val Ala Thr 130 135 140

Ala Ala Glu Ser Leu Arg Pro Ser Phe Leu Gly Ser Thr Phe Asn Leu 145 150 155 160

Arg Met Ser Asp Asp Pro Glu Gln Ser Leu Gln Val Glu Ala Ser Pro 165 170 175

Gly Ser Gly Arg Pro Ala Pro Ala Ala Gln Thr Pro Leu Leu Gly Arg 180 185 190

Phe Leu Gly Val Gly Ala Pro Ser Pro Ala Ile Ser Leu Arg Asn Phe 195 200 205

Gly Arg Val Arg Gly Thr Pro Arg Pro Pro His Leu Leu Arg Phe Arg 210 215 220

Ala Glu Glu Gly Gly Asp Pro Glu Ala Ala Ala Arg Ile Glu Glu 225 230 235 240

Ser Ala Glu Ser Gly Asp Glu Ala Leu Glu Pro 245 250

<211> 125

<212> PRT

<213> Homo sapiens

<400> 2256

Met Arg Pro Gly Lys Lys Val Leu Val Met Gly Ile Val Asp Leu Asn 1 5 10 15

Pro Glu Ser Phe Ala Ile Ser Leu Thr Cys Gly Asp Ser Glu Asp Pro 20 25 30

Pro Ala Asp Val Ala Ile Glu Leu Lys Ala Val Phe Thr Asp Arg Gln 35 40 45

Leu Leu Arg Asn Ser Cys Ile Ser Gly Glu Arg Gly Glu Glu Gln Ser 50 55 60

Ala Ile Pro Tyr Phe Pro Phe Ile Pro Asp Gln Pro Phe Arg Val Glu 65 70 75 80

Ile Leu Cys Glu His Pro Arg Phe Arg Val Phe Val Asp Gly His Gln
85 90 95

Leu Phe Asp Phe Tyr His Arg Ile Gln Thr Leu Ser Ala Ile Asp Thr 100 105 110

Ile Lys Ile Asn Gly Asp Leu Gln Ile Thr Lys Leu Gly 115 120 125

<210> 2257

<211> 170

<212> PRT

<213> Homo sapiens

<400> 2257

Met Ile Ser Ile His Asn Glu Glu Glu Asn Ala Phe Ile Leu Asp Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Lys Lys Gln Trp Lys Gly Pro Asp Asp Ile Leu Leu Gly Met Phe 20 25 30

Tyr Asp Thr Asp Asp Ala Ser Phe Lys Trp Phe Asp Asn Ser Asn Met 35 40 45

Thr Phe Asp Lys Trp Thr Asp Gln Asp Asp Glu Asp Leu Val Asp 50 60

Thr Cys Ala Phe Leu His Ile Lys Thr Gly Glu Trp Lys Lys Gly Asn 65 70 . 75 80

Cys Glu Val Ser Ser Val Glu Gly Thr Leu Cys Lys Thr Ala Ile Pro 85 90 95

Tyr Lys Arg Lys Tyr Leu Ser Asp Asn His Ile Leu Ile Ser Ala Leu 100 105 110

Val Ile Ala Ser Thr Val Ile Leu Thr Val Leu Gly Ala Ile Ile Trp 115 120 125

Phe Leu Tyr Lys Lys His Ser Asp Ser Arg Phe Thr Thr Val Phe Ser 130 140

Thr Ala Pro Gln Ser Pro Tyr Asn Glu Asp Cys Val Leu Val Val Gly 145 150 155 160

Glu Glu Asn Glu Tyr Pro Val Gln Phe Asp 165 170

<210> 2258

<211> 595

<212> PRT

<213> Homo sapiens

<400> 2258

Met Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Cys Gly Arg Val

Gly Ala Lys Glu Gln Lys Asp Tyr Leu Leu Thr Met Gln Lys Ser Val 20 25 30

Thr Val Gln Glu Gly Leu Cys Val Ser Val Leu Cys Ser Phe Ser Tyr 35 40 45

Pro Gln Asn Gly Trp Thr Ala Ser Asp Pro Val His Gly Tyr Trp Phe 50 60

Arg Ala Gly Asp His Val Ser Arg Asn Ile Pro Val Ala Thr Asn Asn 65 70 75 80

Pro Ala Arg Ala Val Glu Glu Glu Thr Arg Asp Arg Phe His Leu Leu 85 90 95

Gly Asp Pro Gln Asn Lys Asp Cys Thr Leu Ser Ile Arg Asp Thr Arg 100 105 110

Glu Ser Asp Ala Gly Thr Tyr Val Phe Cys Val Glu Arg Gly Asn Met 115 \$120\$ 125

Lys Trp Asn Tyr Lys Tyr Asp Gln Leu Ser Val Asn Val Thr Ala Ser 130 140

Gln Asp Leu Leu Ser Arg Tyr Arg Leu Glu Val Pro Glu Ser Val Thr 145 150 155 160

Val Gln Glu Gly Leu Cys Val Ser Val Pro Cys Ser Val Leu Tyr Pro 165 170 175

His Tyr Asn Trp Thr Ala Ser Ser Pro Val Tyr Gly Ser Trp Phe Lys 180 185 190

Glu Gly Ala Asp Ile Pro Trp Asp Ile Pro Val Ala Thr Asn Thr Pro 195 200 205

Ser Gly Lys Val Gln Glu Asp Thr His Gly Arg Phe Leu Leu Gly 210 215 220

Asp Pro Gln Thr Asn Asn Cys Ser Leu Ser Ile Arg Asp Ala Arg Lys 230 235 Gly Asp Ser Gly Lys Tyr Tyr Phe Gln Val Glu Arg Gly Ser Arg Lys 250 Trp Asn Tyr Ile Tyr Asp Lys Leu Ser Val His Val Thr Ala Leu Thr 265 His Met Pro Thr Phe Ser Ile Pro Gly Thr Leu Glu Ser Gly His Pro 280 Arg Asn Leu Thr Cys Ser Val Pro Trp Ala Cys Glu Gln Gly Thr Pro 295 Pro Thr Ile Thr Trp Met Gly Ala Ser Val Ser Ser Leu Asp Pro Thr 310 315 Ile Thr Arg Ser Ser Met Leu Ser Leu Ile Pro Gln Pro Gln Asp His 330 Gly Thr Ser Leu Thr Cys Gln Val Thr Leu Pro Gly Ala Gly Val Thr Met Thr Arg Ala Val Arg Leu Asn Ile Ser Tyr Pro Pro Gln Asn Leu 360 Thr Met Thr Val Phe Gln Gly Asp Gly Thr Ala Ser Thr Thr Leu Arg 375 380 Asn Gly Ser Ala Leu Ser Val Leu Glu Gly Gln Ser Leu His Leu Val 390 Cys Ala Val Asp Ser Asn Pro Pro Ala Arg Leu Ser Trp Thr Trp Gly 410 Ser Leu Thr Leu Ser Pro Ser Gln Ser Ser Asn Leu Gly Val Leu Glu 420 Leu Pro Arg Val His Val Lys Asp Glu Gly Glu Phe Thr Cys Arg Ala 440 Gln Asn Pro Leu Gly Ser Gln His Ile Ser Leu Ser Leu Ser Leu Gln 455 Asn Glu Tyr Thr Gly Lys Met Arg Pro Ile Ser Gly Val Thr Leu Gly Ala Phe Gly Gly Ala Gly Ala Thr Ala Leu Val Phe Leu Tyr Phe Cys Ile Ile Phe Val Val Val Arg Ser Cys Arg Lys Lys Ser Ala Arg Pro 505 Ala Val Gly Val Gly Asp Thr Gly Met Glu Asp Ala Asn Ala Val Arg 515 520 Gly Ser Ala Ser Gln Gly Pro Leu Ile Glu Ser Pro Ala Asp Asp Ser 530 535

Pro Pro His His Ala Pro Pro Ala Leu Ala Thr Pro Ser Pro Glu Glu 545 550 555 560

Gly Glu Ile Gln Tyr Ala Ser Leu Ser Phe His Lys Ala Arg Pro Gln 565 570 575

Tyr Pro Gln Glu Gln Glu Ala Ile Gly Tyr Glu Tyr Ser Glu Ile Asn 580 585 590

Ile Pro Lys 595

<210> 2259

<211> 274

<212> PRT

<213> Homo sapiens

<400> 2259

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Ser Gly Leu Glu Thr Asp Thr Ala Val Pro Thr Glu Glu Ala Tyr Val 20 25 30

Ile Tyr Asp Glu Asp Tyr Glu Phe Glu Thr Ser Arg Pro Pro Thr Thr 35 40 45

Thr Glu Pro Ser Thr Thr Ala Thr Thr Pro Arg Val Ile Pro Glu Glu 50 60 .

Gly Ala Ile Ser Ser Phe Pro Glu Glu Glu Phe Asp Leu Ala Gly Arg 65 70 75 80

Lys Arg Phe Val Ala Pro Tyr Val Thr Tyr Leu Asn Lys Asp Pro Ser \$90\$

Ala Pro Cys Ser Leu Thr Asp Ala Leu Asp His Phe Gln Val Asp Ser 100 105 110

Leu Asp Glu Ile Ile Pro Asn Asp Leu Lys Lys Ser Asp Leu Pro Pro 115 120 125

Gln His Ala Pro Arg Asn Ile Thr Val Val Ala Val Glu Gly Cys His 130 135 140

Ser Phe Val Ile Val Asp Trp Asp Lys Ala Thr Pro Gly Asp Val Val 145 150 155 160

Thr Gly Tyr Leu Val Tyr Ser Ala Ser Tyr Glu Asp Phe Ile Arg Asn 165 170 175

Lys Trp Ser Thr Gln Ala Ser Ser Val Thr His Leu Pro Ile Glu Asn 180 185

Leu Lys Pro Asn Thr Arg Tyr Tyr Phe Lys Val Gln Ala Gln Asn Pro \$195\$ \$200\$ \$205

His Gly Tyr Gly Pro Ile Ser Pro Ser Val Ser Phe Val Thr Glu Ser

210 215 220

Asp Asn Pro Leu Leu Val Val Arg Pro Pro Gly Gly Glu Pro Ile Trp 225 230 235 240

Ile Pro Phe Ala Phe Lys His Asp Pro Ser Tyr Thr Asp Cys His Gly 245 250 255

Arg Gln Tyr Val Lys Arg Thr Leu Val Ser Lys Val Arg Gly Ser Trp 260 265 270

Ser Leu

<210> 2260

<211> 468

<212> PRT

<213> Homo sapiens

<400> 2260

Met Pro Ala Leu His Thr Leu Asn Leu Asp His Asn Leu Ile Asp Ala 1 5 10 15

Leu Pro Pro Gly Ala Phe Ala Gln Leu Gly Gln Leu Ser Arg Leu Asp 20 25 30

Leu Thr Ser Asn Arg Leu Ala Thr Leu Ala Pro Asp Pro Leu Phe Ser 35 40 45

Arg Gly Arg Asp Ala Glu Ala Ser Pro Ala Pro Leu Val Leu Ser Phe 50 55 60

Ser Gly Asn Pro Leu His Cys Asn Cys Glu Leu Leu Trp Leu Arg Arg 65 70 75 80

Leu Ala Arg Pro Asp Asp Leu Glu Thr Cys Ala Ser Pro Pro Gly Leu 85 90 95

Ala Gly Arg Tyr Phe Trp Ala Val Pro Glu Gly Glu Phe Ser Cys Glu
100 105 110

Pro Pro Leu Ile Ala Arg His Thr Gln Arg Leu Trp Val Leu Glu Gly 115 120 125

Gln Arg Ala Thr Leu Arg Cys Arg Ala Leu Gly Asp Pro Ala Pro Thr 130 135 140

Met His Trp Val Gly Pro Asp Asp Arg Leu Val Gly Asn Ser Ser Arg 145 150 155 160

Ala Arg Ala Phe Pro Asn Gly Thr Leu Glu Ile Gly Ala Thr Gly Ala 165 170 175

Gly Asp Ala Gly Gly Tyr Thr Cys Ile Ala Thr Asn Pro Ala Gly Glu 180 185 190

Ala Thr Ala Arg Val Glu Leu Arg Val Leu Ala Leu Pro His Gly Gly 195 200 205

Asn Ser Ser Ala Glu Gly Gly Arg Pro Gly Pro Ser Asp Ile Ala Ala 210

Ser Ala Arg Thr Ala Ala Glu Gly Glu Gly Thr Leu Glu Ser Glu Pro 225

230

240

Ala Val Gln Val Thr Glu Val Thr Ala Thr Ser Gly Leu Val Ser Trp 245 250 255

Gly Pro Gly Arg Pro Ala Asp Pro Val Trp Met Phe Gln Ile Gln Tyr 260 265 270

Asn Ser Ser Glu Asp Glu Thr Leu Ile Tyr Arg Ile Val Pro Ala Ser 275 280 285

Ser His His Phe Leu Leu Lys His Leu Val Pro Gly Ala Asp Tyr Asp 290 295 300

Leu Cys Leu Leu Ala Leu Ser: Pro Ala Ala Gly Pro Ser Asp Leu Thr 305 310 315 320

Ala Thr Arg Leu Leu Gly Cys Ala His Phe Ser Thr Leu Pro Ala Ser 325 330 335

Pro Leu Cys His Ala Leu Gl
n Ala His Val Leu Gly Gly Thr Leu Thr\$340\$ \$350\$

Val Ala Val Gly Gly Val Leu Val Ala Ala Leu Leu Val Phe Thr Val 355 360 365

Ala Leu Leu Val Arg Gly Arg Gly Ala Gly Asn Gly Arg Leu Pro Leu 370 375 380

Lys Leu Ser His Val Gln Ser Gln Thr Asn Gly Gly Pro Ser Pro Thr 385 390 395 400

Pro Lys Ala His Pro Pro Arg Ser Pro Pro Pro Arg Pro Gln Arg Ser 405 410 415

Cys Ser Leu Asp Leu Gly Asp Ala Gly Cys Tyr Gly Tyr Ala Arg Arg 420 425 430

Leu Gly Gly Ala Trp Ala Arg Arg Ser His Ser Val His Gly Gly Leu 435 440 445

Leu Gly Ala Gly Cys Arg Gly Val Gly Gly Ser Ala Glu Arg Leu Glu
450 455 460

Glu Ser Val Val 465

<210> 2261

<211> 86

<212> PRT

<213> Homo sapiens

<400> 2261

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Gly Leu Ala His Gly Asn Val Leu Lys Val Leu His Gln Ala Gln Leu 20 25 30

His Lys Asp Ala Leu Val Val Ile Lys Lys Gly Met Asp Gln Pro Arg 35 40 45

Pro Ser Ala Arg Gln Glu Pro Pro Thr Ala Asn Gly Lys Gly Leu Leu 50 55 60

Ser Arg Lys Thr Ile Pro Leu Glu Pro Gly Ile Gly Lys Met Ile Ile 65 70 75 80

Ser Thr Thr Ser Arg Leu 85

<210> 2262

<211> 105

<212> PŔT

<213> Homo sapiens

<400> 2262

Met Lys Gly Ser Arg Ala Leu Leu Leu Val Ala Leu Thr Leu Phe Cys
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Ile Cys Arg Met Ala Thr Gly Glu Asp Asn Asp Glu Phe Phe Met Asp 20 25 30

Phe Leu Gln Thr Leu Leu Val Gly Thr Pro Glu Glu Leu Tyr Glu Gly 35 40 45

Thr Leu Gly Lys Tyr Asn Val Asn Glu Asp Ala Lys Ala Ala Met Thr 50 55 60

Glu Leu Lys Ser Cys Ile Asp Gly Leu Gln Pro Met His Lys Ala Glu 65 70 75 80

Leu Val Lys Leu Leu Val Gln Val Leu Gly Ser Gln Asp Gly Ala Gly 85 90 95

Thr Asp Tyr Lys Asp Asp Asp Asp Lys

<210> 2263

<211> 167

<212> PRT

<213> Homo sapiens

<400> 2263

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Trp Ser Arg Glu Leu Pro Cys Ala Trp Arg Ala Leu His Thr Ser Pro 20 25 30

Val Cys Ala Lys Asn Arg Ala Ala Arg Val Arg Val Ser Lys Gly Asp 35 40 45

Lys Pro Val Thr Tyr Glu Glu Ala His Ala Pro His Tyr Ile Ala His 50 55 60

Arg Lys Gly Trp Leu Ser Leu His Thr Gly Asn Leu Asp Gly Glu Asp 65 70 75 . 80

Trp Gly Thr Phe Pro Gly Cys Leu Ala Asp Gln Leu Val Leu Lys Arg 100 105 110

Arg Gly Asn Gln Leu Glu Ile Cys Ala Val Val Leu Arg Gln Leu Ser 115 120 125

Pro His Lys Tyr Tyr Phe Leu Val Gly Tyr Ser Glu Thr Leu Leu Ser 130 135 140

Tyr Phe Tyr Lys Cys Pro Val Arg Leu His Leu Gln Thr Val Pro Ser 145 150 155 160

Lys Val Val Tyr Lys Tyr Leu 165

<210> 2264

<211> 203

<212> PRT

<213> Homo sapiens

<400> 2264

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Ala Lys Met Lys Gly Tyr Pro His Trp Pro Ala Arg Ile Asp Glu Leu 20 25 30

Pro Glu Gly Ala Val Lys Pro Pro Ala Asn Lys Tyr Pro Ile Phe Phe 35 40 45

Phe Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro 50 55 60

Tyr Lys Glu Tyr Lys Asp Lys Phe Gly Lys Ser Asn Lys Arg Lys Gly 65 70 75 80

Phe Asn Glu Gly Leu Trp Glu Ile Glu Asn Asn Pro Gly Val Lys Phe 85 90 95

Thr Gly Tyr Gln Ala Ile Gln Gln Gln Ser Ser Ser Glu Thr Glu Gly 100 105 110

Glu Gly Gly Asn Thr Ala Asp Ala Ser Ser Glu Glu Glu Gly Asp Arg 115 120 125

Val Glu Glu Asp Gly Lys Gly Lys Arg Lys Asn Glu Lys Ala Gly Ser 130 135 140

Lys Arg Lys Lys Ser Tyr Thr Ser Lys Lys Ser Ser Lys Gln Ser Arg 145 150 155 160

Lys Ser Pro Gly Asp Glu Asp Asp Lys Asp Cys Lys Glu Glu Glu Asn 165 170 175

Lys Ser Ser Ser Glu Gly Gly Asp Ala Gly Asn Asp Thr Arg Asn Thr

Thr Ser Asp Leu Gln Lys Thr Ser Glu Gly Thr
195 200

<210> 2265

<211> 253

<212> PRT

<213> Homo sapiens

<400> 2265

Met Arg Ser Gly Lys Met Ala Pro Lys Pro Gln Ser Arg Cys Thr Ser 1 5 10 15

Thr Arg Ser Ala Gly Glu Ala Pro Ser Glu Asn Gln Ser Pro Ser Lys
20 25 30

Gly Pro Glu Glu Ala Ser Ser Glu Val Gln Asp Thr Asn Glu Val His
35 40 45

Val Pro Gly Asp Gln Asp Glu Pro Gln Thr Leu Gly Lys Lys Gly Ser 50 55 60

Lys Asn Asn Ile Ser Val Tyr Met Thr Leu Asn Gln Lys Lys Ser Asp 65 70 75 80

Ser Ser Ser Ala Ser Val Cys Ser Ile Asp Ser Thr Asp Asp Leu Lys
85 90 95

Ser Ser Asn Ser Glu Cys Ser Ser Ser Glu Ser Phe Asp Phe Pro Pro 100 105 110

Gly Ser Met His Ala Pro Ser Thr Ser Ser Thr Ser Ser Ser Lys 115 120 125

Glu Glu Lys Lys Leu Ser Asn Ser Leu Lys Met Lys Val Phe Ser Lys 130 135 140

Asn Val Ser Lys Cys Val Thr Pro Asp Gly Arg Thr Ile Cys Val Gly
145 150 155 160

Asp Ile Val Trp Ala Lys Ile Tyr Gly Phe Pro Trp Trp Pro Ala Arg 165 170 175

Ile Leu Thr Ile Thr Val Ser Arg Lys Asp Asn Gly Leu Leu Val Arg \$180\$

Gln Glu Ala Arg Ile Ser Trp Phe Gly Ser Pro Thr Thr Ser Phe Leu

195 200 205

Ala Leu Ser Gln Leu Ser Pro Phe Leu Glu Asn Phe Gln Ser Arg Phe 210 215 220

Asn Lys Lys Arg Lys Gly Leu Tyr Arg Lys Ala Ile Thr Glu Ala Ala 225 230 235 240

Lys Ala Ala Lys Gln Leu Thr Pro Glu Val Arg Ala Cys 245 250

<210> 2266

<211> 314

<212> PRT

<213> Homo sapiens

<400> 2266

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1 5 10 15

Gly Tyr Pro His Trp Pro Ala Arg Ile Asp Asp Ile Ala Asp Gly Ala 20 25 30

Val Lys Pro Pro Pro Asn Lys Tyr Pro Ile Phe Phe Phe Gly Thr His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro Tyr Asp Lys Cys 50 55 60

Lys Asp Lys Tyr Gly Lys Pro Asn Lys Arg Lys Gly Phe Asn Glu Gly 65 70 75 80

Leu Trp Glu Ile Gln Asn Asn Pro His Ala Ser Tyr Ser Ala Pro Pro 85 90 95

Pro Val Ser Ser Ser Asp Ser Glu Ala Pro Glu Ala As
n Pro Ala Asp 100 105 110

Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val Met Ala Val $115 \\ 120 \\ 125$

Thr Ala Val Thr Ala Thr Ala Ala Ser Asp Arg Met Glu Ser Asp Ser 130 135 140

Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg Lys Thr Pro 145 150 155 160

Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala Ser Ser Asp 165 170 175

Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Glu Asn Ser Glu Ser 180 185 190

Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr Pro Glu Lys 195 200 205

Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly Gly Arg Lys 210 215 220

Lys Lys Lys Ala Pro Ser Ala Ser Asp Ser Asp Ser Lys Ala Asp Ser 225 230 235 240

Asp Gly Ala Lys Pro Glu Pro Val Ala Met Ala Arg Ser Ala Ser Ser 245 250 255

Ser Ser Ser Ser Ser Ser Ser Ser Asp Ser Asp Val Ser Val Lys Lys 260 265 270

Pro Pro Arg Gly Arg Lys Pro Thr Glu Lys Pro Leu Pro Lys Pro Arg 275 280 285

Gly Arg Lys Pro Lys Pro Glu Arg Pro Pro Ser Ser Ser Ser Ser Asp 290 295 300

Ser Asp Ser Asp Glu Val Asp Arg Ile Thr 305

<210> 2267

<211> 281

<212> PRT

<213> Homo sapiens

<400> 2267

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Ala Phe Ala Ser Gly Leu Val Leu Ser Arg Val Pro His Val Gln Gly 20 25 30

Glu Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser Pro Pro Asp 35 40 45

His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr Arg Pro Ser Gln 50 55 60

Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg Cys Cys Asp Pro Gly 65 70 75 80

Thr Ser Met Tyr Pro Ala Thr Ala Val Pro Gln Ile Asn Ile Thr Ile 85 90 95

Leu Lys Gly Glu Lys Gly Asp Arg Gly Asp Arg Gly Leu Gln Gly Lys 100 105 110

Tyr Gly Lys Thr Gly Ser Ala Gly Ala Arg Gly His Thr Gly Pro Lys
115 120 125

Gly Gln Lys Gly Ser Met Gly Ala Pro Gly Glu Arg Cys Lys Ser His 130 135 140

Tyr Ala Ala Phe Ser Val Gly Arg Lys Lys Pro Met His Ser Asn His 145 150 155 160

Tyr Tyr Gln Thr Val Ile Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp 165 170 175

His Phe Asn Met Phe Thr Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu 180 185 190

Tyr Phe Phe Ser Leu Asn Val His Thr Trp Asn Gln Lys Glu Thr Tyr 195 200 205

Leu His Ile Met Lys Asn Glu Glu Glu Val Ala Ile Leu Phe Ala Gln 210 215 220

Val Gly Asp Arg Ser Ile Met Gln Ser Gln Ser Leu Met Leu Glu Leu 225 230 235 240

Arg Glu Gln Asp Gln Val Trp Val Arg Leu Tyr Lys Gly Glu Arg Glu 245 250 255

Asn Ala Ile Phe Ser Glu Glu Leu Asp Thr Tyr Ile Thr Phe Ser Gly 260 265 270

Tyr Leu Val Lys His Ala Thr Glu Pro 275 . 280

INDICATIONS RELATING TO A DEPOSITED MICROORGANISM OR OTHER BIOLOGICAL MATERIAL

	(PCT Rule 13bis)
A. The indications made below relate to the deposit description on page 243, line 24.	cd microorganism or other biological material referred to in the
B. IDENTIFICATION OF DEPOSIT	Further deposits are identified on an additional sheet
Name of depositary institution: American	Type Culture Collection
Address of depositary institution (including 10801 University Boulevard Manassas, Virginia 20110-2209 United States of America	postal code and country)
Date of deposit 11 April 2001	Accession Number PTA-3276
C. ADDITIONAL INDICATIONS (leave blank if	not applicable) This information is continued on an additional sheet.
D. DESIGNATED STATES FOR WHICH INDI	CATIONS ARE MADE (If the indications are not for all designated States)
fund the publication of the mention of the grant of the	Fatent is sought a sample of the deposited microorganism will be made available European patent or until the date on which the application has been refused or ssue of such a sample to an expert nominated by the person requesting the Continued on additional sheets
E. SEPARATE FURNISHING OF INDICATIO	NS (leave blunk if nor applicable)
The indications listed below will be submitted to the inter Number of Deposit")	national Bureau later (specify the general nature of the indications e.g., "Accessio.
For receiving Office use only	For International Bureau use only
☐ This sheet was received with the international applica	tion 2 This sheet was received by the International Bureau on 15 MAY 200 (15.05.01)
Authorized officei	Authorized officer P. Becarnel
Revised Form PCT/RO/134 (January 2001)	Petro134ep:

ATCC Deposit No.: PTA-3276

CANADA

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

NORWAY

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

AUSTRALIA

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

FINLAND

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

UNITED KINGDOM

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

ATCC Deposit No.: PTA-3276

DENMARK

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later that at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

SWEDEN

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex Z of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

NETHERLANDS

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

INDICATIONS RELATING TO A DEPOSITED MICROORGANISM OR OTHER BIOLOGICAL MATERIAL

	THE PART OF THE PARTIES.
	(PCT Rule 13bis)
A. The indications made below relate to the depos description on page 243, line 24.	sited microorganism or other biological material referred to in the
B. IDENTIFICATION OF DEPOSIT	Further deposits are identified on an additional sheet
Name of depositary institution: American	1 Type Culture Collection
Address of depositary institution (includin 10801 University Boulevard Manassas, Virginia 20110-2209 United States of America	ng postal code and country)
Date of deposit	Accession Number
11 April 2001	PTA-3277
C. ADDITIONAL INDICATIONS (leave blank i	if not applicable) This information is continued on an additional sheet
D. DESIGNATED STATES FOR WHICH INI	DICATIONS ARE MADE (if the indications are not for all designated States)
withdrawn or is deemed to be withdrawn, only by the sample (Rule 28(4) EPC)	Patent is sought a sample of the deposited microorganism will be made available European patent or until the date on which the application has been refused or a issue of such a sample to an expert nominated by the person requesting the Continued on additional sheets
E. SEPARATE FURNISHING OF INDICATION	ONS floure blank if not applicable)
The indications listed below will be submitted to the int Number of Deposit") For receiving Office use only	For International Bureau use only
This sheet was received with the international applic	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Authorized officer	Authorized officer Authorized officer
levised Form PCT/RO/134 (January 2001)	Petro134ep sul

ATCC Deposit No.: PTA-3277

CANADA

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

NORWAY

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

AUSTRALIA

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

FINLAND

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

UNITED KINGDOM

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

ATCC Deposit No.: PTA-3277

DENMARK

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later that at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

SWEDEN

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex Z of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

NETHERLANDS

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

INDICATIONS RELATING TO A DEPOSITED MICROORGANISM OR OTHER BIOLOGICAL MATERIAL

	(PCT Rule 13bis)	
A. The indications made below relate to the deposit	ited microorganism or other biological material referred to in the	
B. IDENTIFICATION OF DEPOSIT	Further deposits are identified on an additional sheet	
Name of depositary institution: American	Type Culture Collection	
Address of depositary institution (including 10801 University Boulevard Manassas, Virginia 20110-2209 United States of America	g postal code and country)	
Date of deposit	Accession Number	
11 April 2001	PTA-3278	
C. ADDITIONAL INDICATIONS (leave blank if	This information is continued on an additional sheet	
D. DESIGNATED STATES FOR WHICH IND	CATIONS ARE MADE (if the Indications are not for all designated States)	
with the partication of the mention of the fight of the	Patent is sought a sample of the deposited microorganism will be made available European patent or until the date on which the application has been refused or issue of such a sample to an expert nominated by the person requesting the Continued on additional sheets NS (trans blank if not applicable)	
	emanonal Bureau later (specify the general nature of the indications e.g., "Accession	
For receiving Office use only	For International Bureau use only	
For receiving Office use only This sheet was received with the international applica		
	ation This sheet was received by the International Bureau on:	

ATCC Deposit No.: PTA-3278

CANADA

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

NORWAY

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

AUSTRALIA

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

FINLAND

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

UNITED KINGDOM

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

ATCC Deposit No.: PTA-3278

DENMARK

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later that at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

SWEDEN

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex Z of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

NETHERLANDS

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

INDICATIONS RELATING TO A DEPOSITED MICROORGANISM OR OTHER BIOLOGICAL MATERIAL

	(PCT Rule 13bis)
A. The indications made below relate to the deposite description on page 243, line 24	sted microorganism or other biological material referred to in the
B. IDENTIFICATION OF DEPOSIT	Further deposits are identified on an additional sheet
Name of depositary institution: American	Type Culture Collection
Address of depositary institution (including 10801 University Boulevard Manassas, Virginia 20110-2209 United States of America	g postal code and country)
Date of deposit	Accession Number
11 April 2001	PTA-3279
C. ADDITIONAL INDICATIONS (teave blank if	(not applicable) This information is continued on an additional sheet
D. DESIGNATED STATES FOR WHICH IND	ICATIONS ARE MADE (if the indications are not for ull designated States)
until the publication of the mention of the grant of the	Patent is sought a sample of the deposited microorganism will be made available e European patent or until the date on which the application has been refused or issue of such a sample to an expert nominated by the person requesting the Continued on additional sheets
E. SEPARATE FURNISHING OF INDICATION	DNS (learn blank if not applicable)
The indications listed below will be submitted to the inte Number of Deposit")	emational Buteau later (specify the general nuture of the indicutions e.g., "Accession
For receiving Office use only	For International Bureau use only
For receiving Office use only This sheet was received with the international applica	
	ution

ATCC Deposit No.: PTA-3279

CANADA

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

NORWAY

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

AUSTRALIA

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

FINLAND

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

UNITED KINGDOM

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

ATCC Deposit No.: PTA-3279

DENMARK

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later that at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

SWEDEN

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex 2 of Volume 1 of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

NETHERLANDS

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/11988

A. CLASSIFICATION OF SUBJECT MATTER					
IPC(7) : C07H 21/04					
US CL	: 536/23.4, 23.5	direct to 10 of the time			
	According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED				
					
	Minimum documentation searched (classification system followed by classification symbols) U.S.: 536/23.4, 23.5				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WEST, DIALOG					
	MENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where ap	<u> </u>	Relevant to claim No.		
	WO 97/34997 A1 (HUMAN GENOME SCIENCES	S, INC.) 25 September 1997, see the	1-9, 15-19		
Y ,	whole document. WO 97/24445 A1 (DELTA BIOTECHNOLOGY LI	MITED) 10 July 1997, see the whole	1-9, 15-19		
· · · · · · · · · · · · · · · · · · ·	document. EP 0 322 094 A1 (DELTA BIOTECHNOLOGY LI	MITED) 28 June 1989, see Figure 1.	1-9, 15-19		
	documents are listed in the continuation of Box C.	See patent family annex.			
* Special categories of cited documents: "I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand principle or theory underlying the invention of particular relevance			ation but cited to understand the		
	ication or patent published on or after the international filing date	"X" document of particular relevance; the considered novel or cannot be conside when the document is taken alone			
establish the specifical)	which may throw doubts on priority claim(s) or which is cited to e publication date of another citation or other special reason (as	"Y" document of particular relevance; the considered to involve an inventive ster combined with one or more other such	when the document is		
"O" document re	eferring to an oral disclosure, use, exhibition or other means	being obvious to a person skilled in th	c art		
"P" document po priority date	sublished prior to the international filing date but later than the e claimed	"&" document member of the same patent	family		
Date of the act	tual completion of the international search	Date of mailing of the international sea	rch report		
Comm Box PC		Authorized officer Pergsa Strzelecka Authorized Officer Pergsa Strzelecka	to for		
	Washington, D.C. 20231 Facsimile No. (703)305-3230 Telephone No. (703) 308-0196				
Facsimile No. (703)305-3230 Telephone No. (703) 308-0196					

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/11988

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)			
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:			
1.		Claim Nos.: because they relate to subject matter not required to be searched by this Authority, namely:	
2.		Claim Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:	
3.	6.4(a).	Claim Nos.: 10-14, 20-32, 34-36 because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule	
Box	II Ob	oservations where unity of invention is lacking (Continuation of Item 2 of first sheet)	
		cional Searching Authority found multiple inventions in this international application, as follows:	
1.		As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.	
2.		As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.	
3.		As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:	
4.	\boxtimes	No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-9, 15-19, protein X HETFO52	
Ren	nark on	Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.	

International application No.

PCT/US01/11988

INTERNATIONAL SEARCH REPORT

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

1. Groups 1-6918, claims 1-9 and 15-19 (all in part), drawn to an albumin fusion protein comprising a Therapeutic protein: X and albumin.

If Group 1 is elected, this correlates to protein identified by X=HETFO52 with a preferred indication Y: neural/sensory, reproductive.

If Group 2 is elected, this correlates to protein identified by X=HETEZ10 with a preferred indication Y: cancer.

5. Groups 6919-13836, claim 33 (in part), drawn to a method of extending the shelf life of a Therapeutic protein: X. If Group 6919 is elected, this correlates to protein identified by X=HETFO52 with a preferred indication Y: neural/sensory, reproductive.

If Group 6920 is elected, this correlates to protein identified by X=HETEZ10 with a preferred indication Y: cancer.

The inventions listed as Groups 1-13836 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The special technical feature is an albumin fusion protein. Balance et al. (WO 90/13653) teach albumin fusion proteins comprising human fibronectin, CD4, platelet derived growth factor, transforming growth factor beta, human von Willebrand factor or alpha-1-antitrypsin.